

Exploring the MapPlace

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Workshop Notes
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INTRODUCTION

The MapPlace is an Internet-based system that provides users free access to British Columbia Ministry of Energy and Mines geospatial data, with links to attribute data. This document describes The MapPlace and its components. Downloading and installing the free Autodesk MapGuide Viewer, is explained. Notes on the viewer tools and popup menus show users how to interactively view, create, bookmark, print and copy their own maps. Reports and data downloads are covered. Examples and hands on exercises will familiarize users with available maps such as the BCGS Geology Map, Exploration Assistant, Mineral Titles Map and Selected Theme Maps. Each map has a legend representing various data layers in point, polygon or raster format. These workshop notes are of interest to prospectors, geoscientists, explorationists and land planners who want to save research time, access provincial geoscience databases, and learn more about the BC Geological Survey website. Ward Kilby is acknowledged as the developer of MapPlace from 1997 until 2000. Tara Tompkins is acknowledged in preparing the workshop notes and presentation material.

THE MAPPLACE - What is it?

The MapPlace is an Internet-based system providing users access to vast amounts of free geospatial data. With the free Autodesk MapGuide Viewer, users can download data, interactively view, create, print and copy their own maps and reports. The MapPlace provides access to most of the British Columbia Ministry of Energy and Mines geospatial data, including bedrock geology, surficial geology, metallic and industrial mineral potential ranking, regional silt and water geochemical surveys (RGS), mineral occurrences (MINFILE), assessment reports (ARIS) and mineral title locations. These themes can be combined with other available georeferenced datasets, such as administrative boundaries, topographic features and other related map-based information, including raster images, such as digital elevation model (DEM) shaded relief, satellite (LandSat) and aeromagnetics, to produce user-defined maps. [Table 2](#) is summary of major datasets accessible through the MapPlace.



Figure 1. The MapPlace Website.

In addition to the creation of a map, many of the features that can be displayed on MapPlace are linked to supporting database tables, thus allowing users to access valuable attribute data that is linked to individual map objects. For some themes, clicking on an object links to a separate Internet site such as MINFILE or Mineral Titles allowing further search and retrieval capabilities. Other options include buffering, selecting objects within polygons, and digitizing of polygons, points and lines on screen. [Figure 1](#) is the startup page for the MapPlace, showing links to more information; the web site is www.em.gov.bc.ca/MapPlace. [Appendix 4 and 5](#) are reprints of articles, providing additional information on evolution and configuration of the MapPlace and an application example.

Ward Kilby began developing MapPlace in 1997 around several off-the-shelf software packages including Autodesk MapGuide™, Allaire ColdFusion™, Microsoft Access™ and the usual web server software. Databases handle all the tabular information associated with the site. ColdFusion is used as a web database manager, report writer and sophisticated web toolkit. MapGuide Server, Author and Viewer software provide the map displays, GIS functionality and development environment for this style of web presentation.

Several of the datasets displayed on the MapPlace, including the tectonic assemblage map geology, reside on other MapGuide servers. This integration of data from different sources and custodianships is one of the most powerful features of distributed systems ([Figure 2](#)).

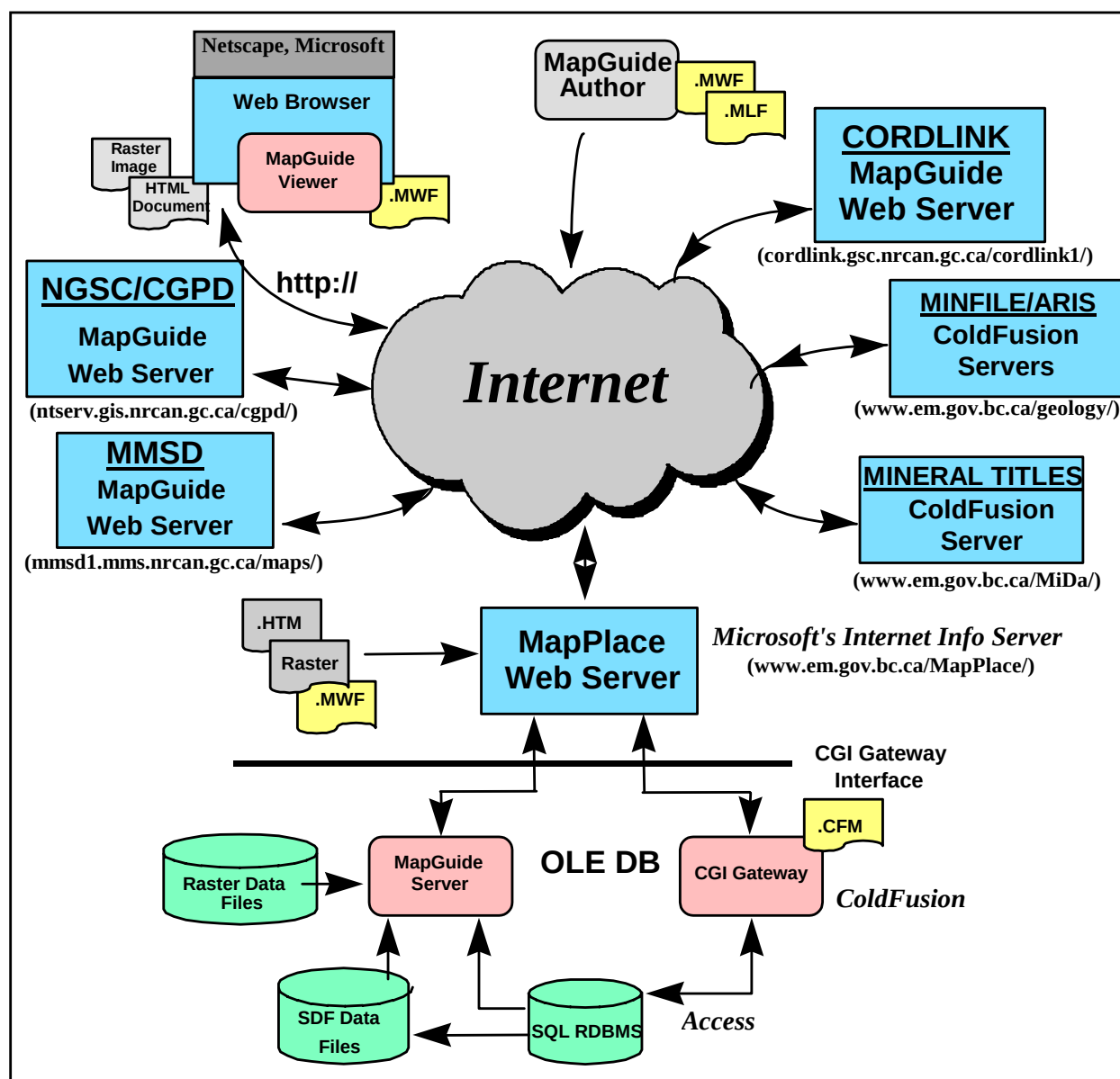


Figure 2. Diagrammatic view of the MapPlace configuration in relation to the Internet, geographic data, attribute databases, other websites and other MapGuide sites.

USING THE AUTODESK MAPGUIDE VIEWER

The Autodesk MapGuide Viewer transforms your browser (e.g. Microsoft Internet Explorer or Netscape) into a map viewer that works over the Internet. As a type of geographic information system (GIS), the Viewer enables non-technical users to zoom in and out on a map; find, select and display information about specific features; collapse or expand layer groups; make queries; create buffers; print to scale, and much more. The efficient Viewer only downloads the information required or selected to display a map.

The Viewer is under 3MB in size and is distributed to end-users free of charge. Autodesk MapGuide Viewer can be downloaded by going to www.mapguide.com or through the link at the MapPlace. The MapPlace also contains a link to instructions on how to download and install the Viewer, as well as links to user guides, on-line tutorials, interactive demos, help functions and FAQs. The Autodesk MapGuide Viewer Help guide provides an excellent resource for users and is reproduced in Appendix 1.

Available Versions of the Autodesk MapGuide Viewer

The MapPlace uses Autodesk MapGuide Viewer Release 6 to display maps. The MapGuide Viewer is available for Netscape Navigator, Microsoft Internet Explorer, or Mac OS 8.5/9. Depending on which operating system or browser you are using, download one of the following versions:

Operating System: Microsoft Windows 95/98/2000 or Windows NT 4.0:

Autodesk MapGuide Viewer for ...	Download file/Installation Notes
Microsoft Internet Explorer 4x or later	MGControl60.exe (ActiveX component)
Netscape Navigator 4.x (6.x not supported)	MGPlugin60.exe (Plugin component)
Microsoft Internet Explorer 4.x or later - Java Edition	Install Viewer from the Autodesk site
Netscape Navigator 4.x - Java Edition	1. Set display colors to 256 colors or more. 2. Install Viewer from the AutoDesk site. 3. Restart Browser

Table 1. Viewer Download & Installation Instructions

1. Click the **Autodesk MapGuide Icon** to go to the Autodesk MapGuide Website. *Note: if you are using Internet Explorer the ActiveX MapGuide Viewer is automatically installed on your computer.*
2. Once at their Website, click on the **Free Viewer Download** link.
3. Fill in the form; select language, operating system and browser; and click **Download**.
4. **Save the .EXE file** to a folder (**MGControl60.exe** for ActiveX Internet Explorer or **MGPlugin60.exe** for Netscape Plug-in); remember this folder.
5. **Install the Viewer** - open Windows Explorer and locate the file you've just downloaded. Once found, double-click the **.EXE** file and follow instructions to install the Autodesk MapGuide Viewer.
6. **Quit and Restart your Web Browser.** Return to www.em.gov.bc.ca/mapplace.

Now you can use The MapPlace!

Operating System Mac OS 8.5 or 9: Autodesk MapGuide Viewer for Microsoft Internet Explorer 4.x with MRJ2.2 - Java Edition. See online installation instructions.

Organization of Data into Layers

Available data in the MapGuide Viewer is presented in the form of layers. Each layer represents one entity, such as rivers, coal boreholes, or BC Mining Divisions (**Figure 3a**), and performs a function similar to a transparency. The types of data that are available for each map are listed in the legend on the left hand side of the Viewer (**Figure 3b**). When one or more layers are selected, they appear like stacked transparencies and are displayed as a single map (**Figure 3b**). The order in which the layers are 'stacked' or appear on the map, is determined by their position in the legend. Those layers that are located at the bottom are stacked first, followed consecutively by selected layers above. This means that the layer located at the top most part of the legend will be the last layer stacked and it may appear to overlap or cover up some of the data from the lower positioned layers. In general the maps are 'authored' to place raster layers at the bottom, vector layers in the middle and point layers at the top.

Rivers Layer

Coal Boreholes Layer

BC Mining Divisions Layer

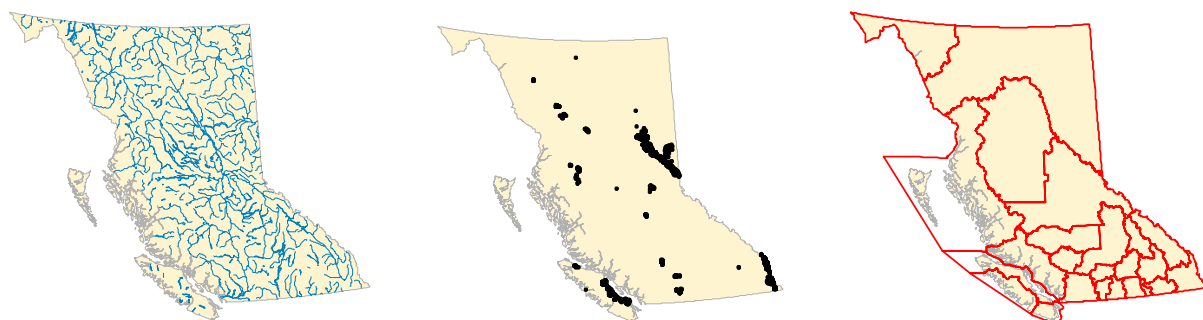


Figure 3a. Layer example selected individually.

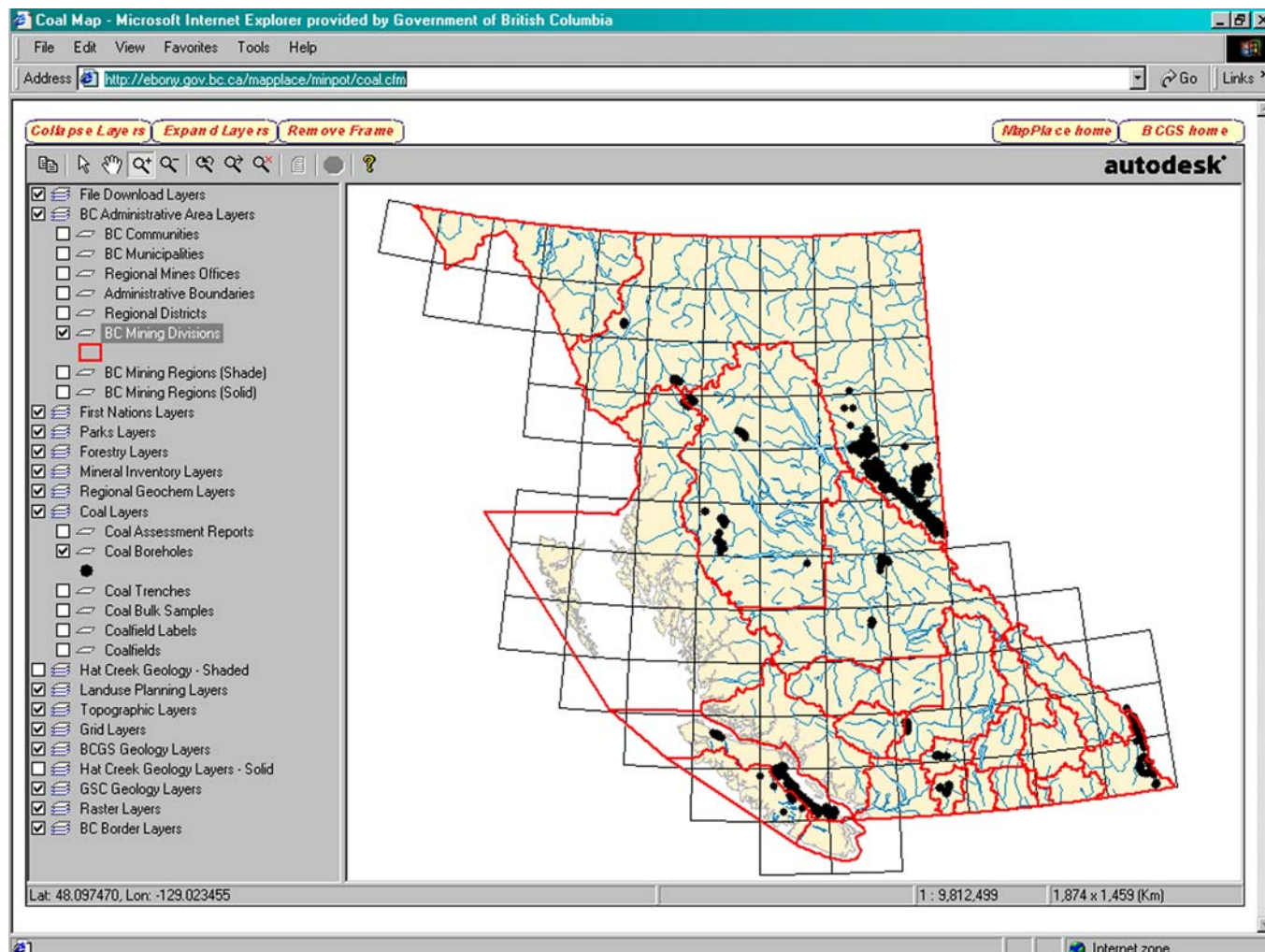


Figure 3b. All 3 layers in Figure 3a were selected together and are displayed on one map.

To further organize the data, layers have been grouped by themes. For example, Figure 4a contains the BC Communities layer, which is a layer within the BC Administrative Layers group. Layer Groups can either be collapsed or expanded by double clicking on the layer group title. To select a layer group or a layer, use your mouse to click on the box adjacent to the layer or layer group. Selection will be indicated by a checkmark in the box. Layers will only be displayed in the map Viewer if the Layer Group has been selected first. As each layer group is selected, different layers become available and can be selected and deselected with the user's needs. Zooming in on a map area also produces more layer choices and the detail of the map increases. This is demonstrated by comparing the available layers in Figure 4a with Figure 4b. The ZOOM IN feature used to produce the map in Figure 4b allows for the BC Localities layer to be available and selected.

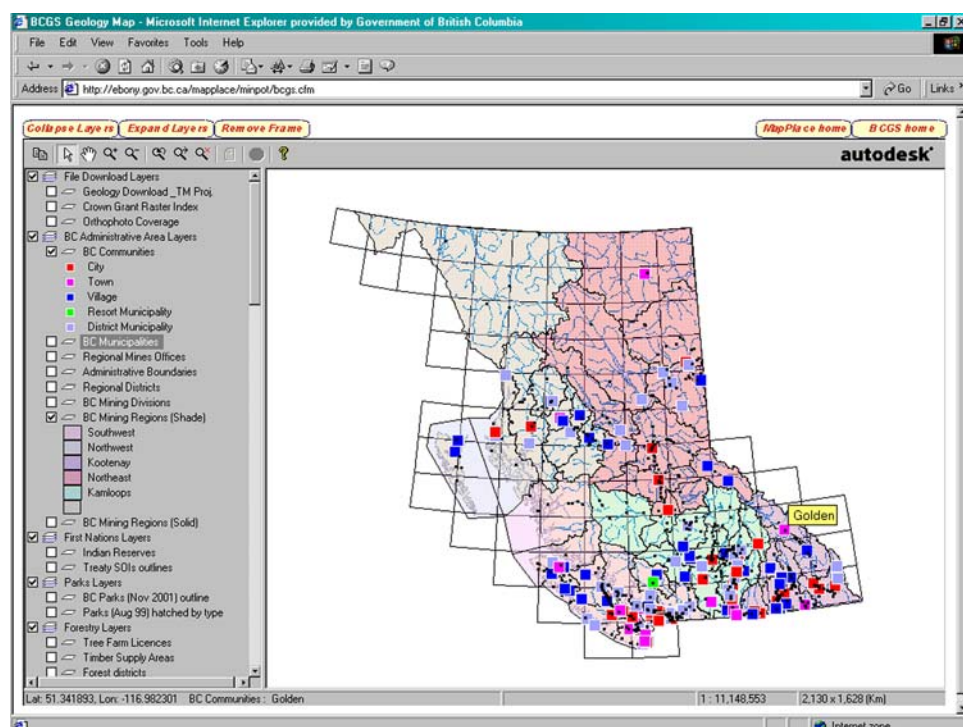


Figure 4a. BCGS Geology Map, viewed at full size. BC Communities and BC Mining Regions (Shade) are selected layers within the BC Administration Layer Group.

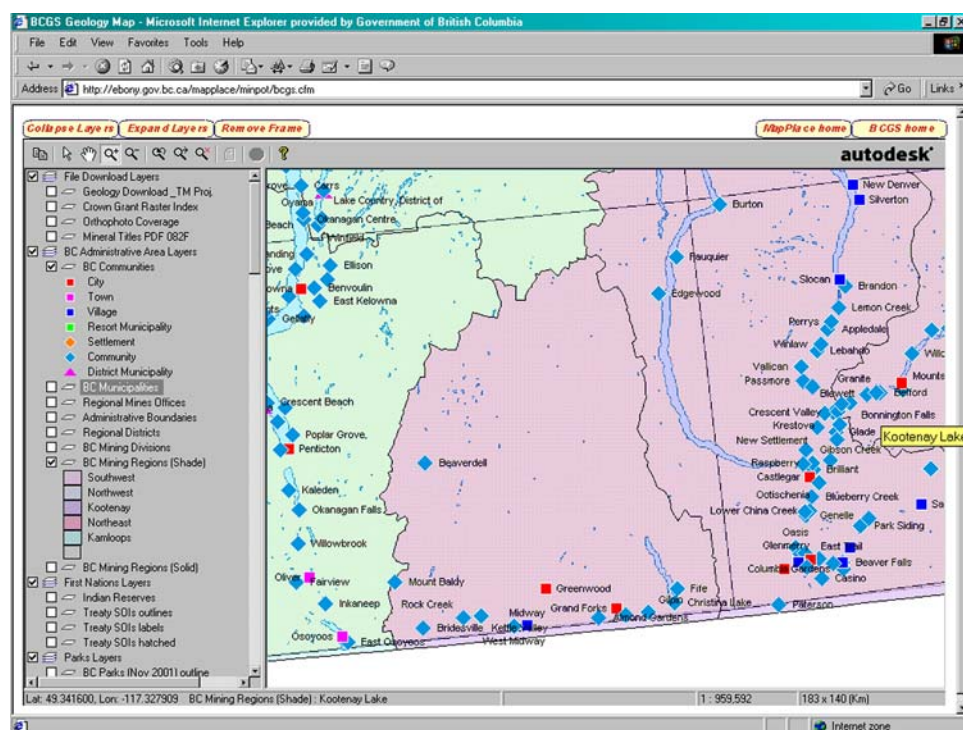


Figure 4b. The ZOOM IN feature used on the map in Figure 4a was used to display a more detailed view. With more detail displayed on the map, another layer 'BC Localities' becomes available and has been selected.

Table 2. Summary of major datasets accessible through The MapPlace.

Layer Group or Name	Object Type	No. of Objects / Coverage	Date Updated	Reports, Downloads and Links	Visible Scales (M=million, K=thousand)	Sources of Data*
Tectonic Assemblage GSB & GSC, Tectonic Belts & Terranes	Polygon, Line	17,472 BCGS	1994	download	incremental to 10M	MEM/GSB; NRCan
Bedrock Geology GSB & GSC (1:5M, 1M, 250K resolution)	Polygon, Line	60,000; 180,570	1994	legend reports & download	incremental to 10M	MEM/GSB; NRCan
Detailed Geology	Polygon, Line, Points	1:50K areas	periodically	legends & tables	<2M	MEM/GSB
Geology Map Index	Polygon	298	1998	data report & download	all scales	MEM/GSB
Geology Download	ArcView & SHP files	100% (1:250K maps)	1998	E00 file & SHP file downloads	all scales	MEM/GSB
Mineral Potential	Polygon	3823	1998	data report & download	all scales, 500K, 2M, 5M	MEM/GSB
Aggregate Pits & Potential	Point, Polygon	725 pts / Nanaimo, Okanagan, Prince George, Sea-to-Sky, Sunshine Coast	periodically	table & SHP file downloads	all scales, 500K	MEM/GSB
Terrain & Slope Stability	Polygon, Raster	> 150 map projects	2001	download TIFF files	various scales	MEM/GSB, MOF
COALFILE (Assessment Reports, Boreholes, Trenches, Bulk Samples), Coalfields	Point, Polygon, PDF files	827 reports; 8350 boreholes; 3324 trenches; 459 bulk samples	1990	report, tables & SHP file downloads	all scales	MEM/GSB
Mineral Occurrences - MINFILE	Point	12,099	monthly	data reports & downloads; links to MINFILE	all scales	MEM/GSB
Assessment Reports - ARIS	Point, PDF files	26,474	monthly	data reports & downloads; links to ARIS	all scales	MEM/GSB
Regional Geochemistry - RGS (37 elements, pH, F & U in water)	Point, Polygon	44,428	annually	complete data download	<1M	MEM/GSB
Mineral Tenure	Polygon	40,405	weekly	data report & links to MIDA	<1M, <3M	MEM/MTB
Crown Grants (Lot Search)	Raster image	100%	periodically	View & TIFF file downloads	<200K	MEM/MTB
Petroleum Tenure & Wells, PNG Grid, Oil & Gas Fields, Pipelines	Point, Polygon	12,000 titles; 14,405 wells	2001, 2002	reports & table download	all scales	MEM/PLB/OGC
Geothermal (Hotsprings, Boreholes, Rotary Boreholes & Potential)	Point, Polygon	109 hotsprings; 158 boreholes; 18 rotary boreholes; 37 potential areas	2002	none	all scales	MEM/PTB
Topography (1:6M, 2M, 1M, 250K, 50K, 20K resolution; Colour Contours, TRIM Contours, Roads, Rail, Rivers, Lakes, Glaciers, Coast, Bathymetry, Aquifers)	Points, Polygon, Line	very large; 7000 TRIM maps; 1122 aquifers	variable; TRIM 1996	some downloads	variable scales for different resolutions	MSRM; WLAP; NRCan; SHIM
Geographic Locations (Map Grids, Gazetteer, Municipalities)	Point, Polygon	41,500	1998	some grid downloads	all scales	MSRM
Administration Areas (First Nations, Parks, Forestry, LRMP areas, Districts)	Polygon	multiple	variable	park download	all scales	MEM; MSRM, MOF
DEM Shaded Relief; LandSat	Raster image	100%; 95%	1999	none	all scales, 300K, 1M	MSRM; NRCan/CCRS
Aeromagnetics; Gravity	Raster image	85%; 100%	2000; 1999	none	all scales, 300K, 1M	NRCan/GDC
Orthophotos (1-metre pixel)	Raster image	85 images	2001	none	all scales, 10K, 50K	McElhanney

*Abbreviations: MEM=BC Ministry of Energy and Mines; GSB=Geological Survey Branch; MTB=Mineral Titles Branch; PLB=Petroleum Lands Branch; OGC=Oil and Gas Commission; MSRM=BC Ministry of Sustainable Resource Management; WLAP=BC Ministry of Water, Land & Air Protection; MOF=BC Ministry of Forests; NRCan=Natural Resources Canada; GSC=Geological Survey of Canada; CCRS=Canada Centre for Remote Sensing; GDC=Geophysical Data Centre; SHIM=Sensitive Habitat Inventory and Mapping

Accessing Commands

The MapGuide Viewer uses either **toolbar buttons** or the **popup menu** to carry out various commands (Figure 5). The toolbar buttons are situated across the top left side of the Viewer window. The popup menu is a menu that appears by clicking the right-hand button on the mouse (referred to as 'right clicking') anywhere in the map window. Right clicking displays the popup menu, and a command can be selected by clicking one of the items in the menu. Those commands that have a right arrow next to them (such as ZOOM) display a secondary popup menu when selected (Figure 5). **Appendix 1 and 2** provide further information about the Toolbar Buttons and Popup Menu.

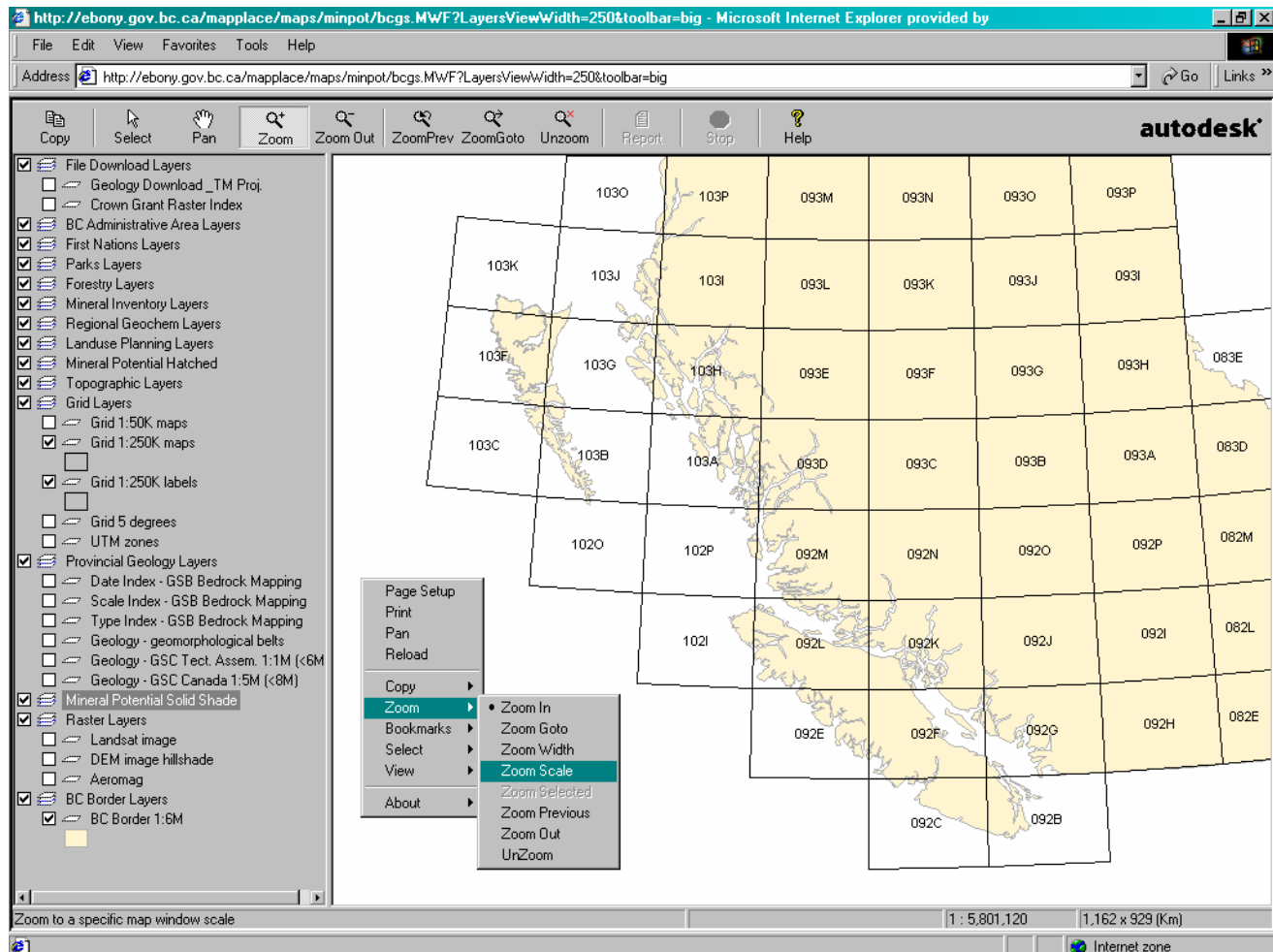


Figure 5. Toolbar Buttons and Popup Menu.

The **toolbar buttons** allow the user to COPY the current map view to the clipboard; SELECT features; PAN or slide the map around to display areas that are outside of the current view; ZOOM to an area that is user defined either with a center point or a rectangle; ZOOM OUT from the area defined by a center point; ZOOM PREVIOUS view that was displayed; ZOOM GOTO a specified location; UNZOOM to display the full extents of the map; VIEW REPORTS associated with the selected map objects; STOP or interrupt the updating of the map display; and HELP to link to the Autodesk MapGuide Viewer Help Website.

The **popup menu** provides additional features to the toolbar buttons, such as the PAGE SETUP dialogue box, where map size can be specified by scale; PRINT the current map displayed; RELOAD the viewer to display the original map layout; ZOOM WIDTH dialog box, where map width can be specified at the place of the cursor; ZOOM SCALE dialog box, where the scale of the map can be defined; ZOOM SELECTED to selected object(s); BOOKMARKS to add and delete bookmark names for displayed map views; SELECT criteria such as OBJECTS, RADIUS, POLYGON, and WITHIN specified map objects; VIEW DISTANCE between two points; VIEW BUFFER to create buffers around selected areas; and ABOUT which links you to Autodesk MapGuide Viewer Help website and allows you to change PROPERTIES such as viewing scale and map coordinates.

A Few Tips

Once the Autodesk MapGuide Viewer is downloaded and installed, the user has the ability to create a map through the MapPlace. **Appendix 1 - Autodesk MapGuide Viewer Help** and **Appendix 3 - Frequently Asked Questions** are great reference tools to get you started and assist you with any problems you might have.

Reduce Downloading Time

There are a couple of ways to decrease downloading time. Downloading time is decreased if you ZOOM IN on a map area before choosing appropriate layers. The same goes when you want to ZOOM OUT of a map area, except you deselect layers before you ZOOM OUT.

Selecting multiple layers can also reduce downloading time. Highlight individual layer titles while holding down the 'Ctrl' key (Figure 6) or by using the 'Shift' key to highlight layer titles in sequence. Once you have highlighted all the layers you want, select any one of the adjacent highlighted layer boxes. The result will be the selection of all the layers at once. The same process can be used when deselecting more than one layer.

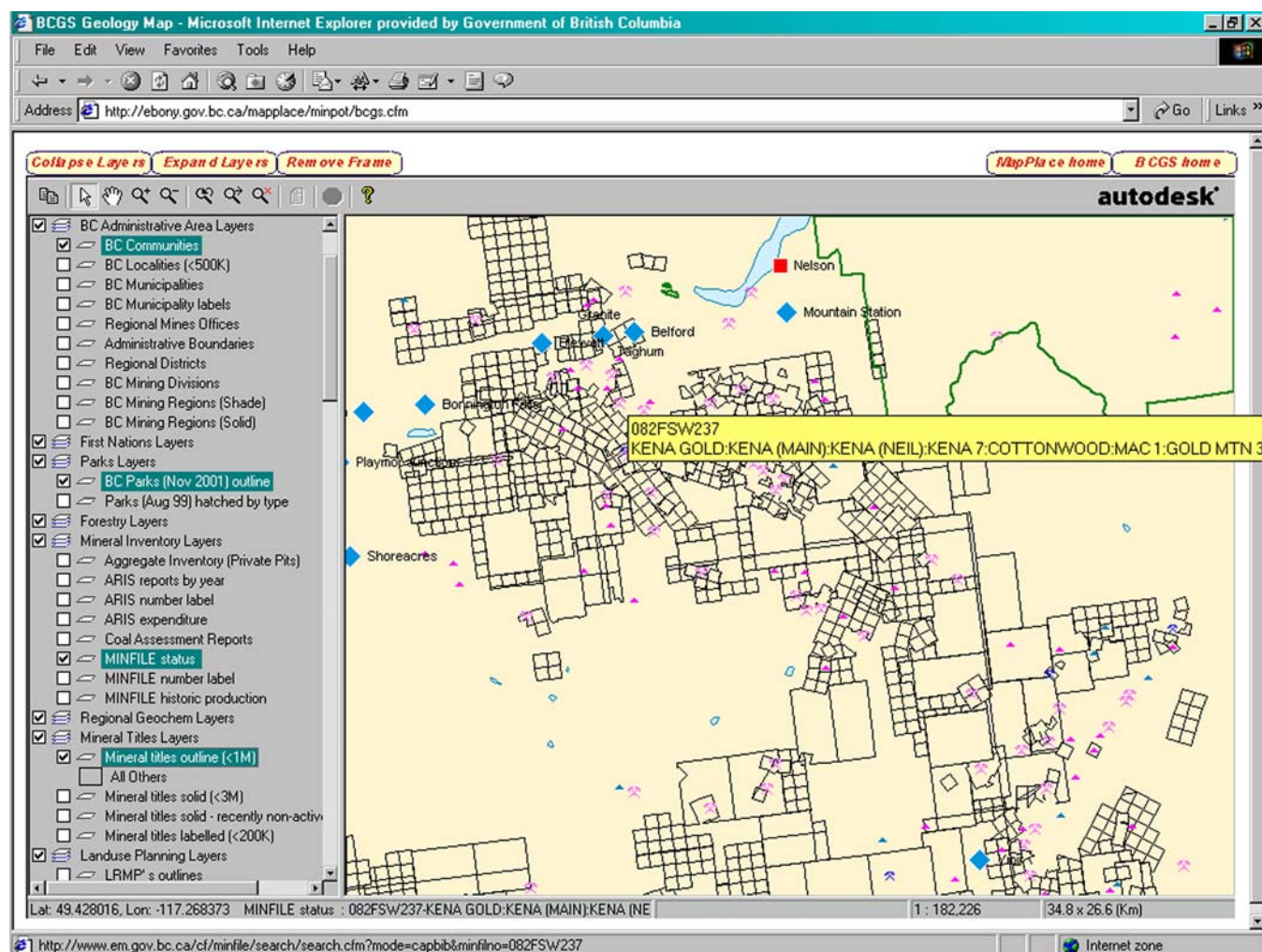


Figure 6. Decrease downloading time by highlighting all necessary layers and then just select one layers box. This will select all layers at once.

More Themes Available

As you ZOOM IN to an area more themes and layers become available or unavailable depending on the scale you are viewing the map. Watch the legend on the lower left-hand side to see which layers can be viewed at any given scale.

Layers are Displayed According to their Position

Layers are displayed on the map according to their position in the legend. Some layers especially polygon layers will hide information from other layers and consideration must be given when you create your maps. In [Figure 7a](#) the DEM Image Hillside layer is visible because only the Minpot Track Outline was selected. In [Figure 7b](#), the DEM Image Hillside layer is not visible because the Minpot Metals Solid layer was selected and due to its higher position in the legend it hides the DEM layer.

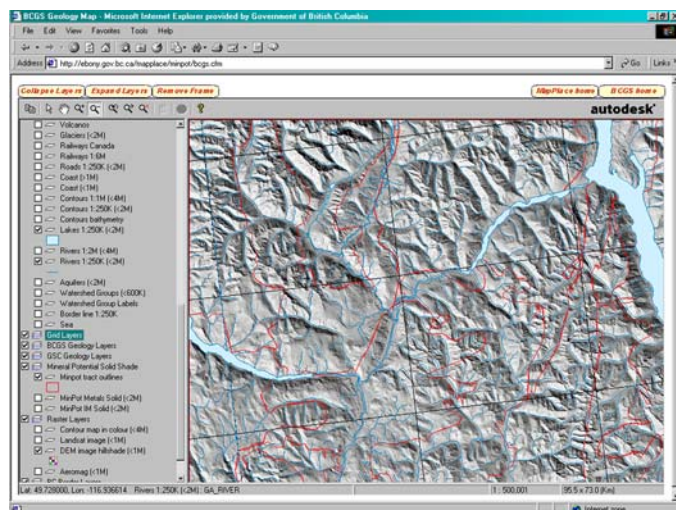


Figure 7a. DEM Hillside Image layer is visible.

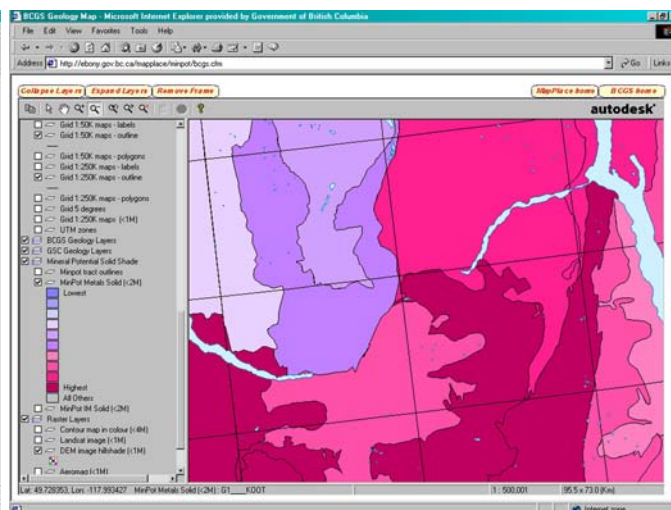


Figure 7b. DEM Hillside layer is not visible due to the selection of Minpot Metals Solid layer, a polygon layer, which is positioned higher in the legend.

Steps to Create a Map

1. From MapPlace open the appropriate map for your needs, for example use the BCGS Geology Map. This will cause the Viewer to open and display the available data.
2. Use the ZOOM IN feature, choose either the ZOOM IN toolbar button or right-click and choose the ZOOM IN command from the popup menu, to select a particular area of interest.
3. Select or deselect the appropriate layers.
4. Use the PAN function, choose either the PAN toolbar button or right-click and choose the PAN command from the popup menu, to move the map around and get to the area you want to view, bookmark, copy, save or print.

Bookmarking Maps

Bookmarks are used to save and return to a view of a defined map area. Once you are satisfied with your map, right click on the map and choose BOOKMARK\ADD BOOKMARK. A dialogue box will appear, type in an appropriate title for you map. To access this map in the future, choose BOOMARKS from the popup menu and your previously bookmarked map should be listed near the bottom of the popup menu and can be displayed by selecting it with your mouse.

The bookmark will take you to the map area, but you have to turn on the various layers. Bookmarks do not save whether layers are turned on or off. Note that if you are in the map that the bookmark was created and if the layers are already turned on, when you go to a bookmark, those layers will stay on in the new location. Bookmarks are connected to the map they were created in. For example, if you create a bookmark in the Mineral Title map, and later open the BCGS Geology map and use the bookmark, it will take you back to the Mineral Title map.

The Viewer help also describes using URL Parameters to customize map views. Look under Advanced Topics in: <http://www.mapguide.com/help/ver6/viewer/en/index.htm>.

Saving Maps

To save a map while in The MapPlace, use the SAVE AS command on the Browser File menu. Name the map and click OK. The map is saved as an html file and can be viewed with your browser by double-clicking on the file or opening the file from your browser. You can also use your browser bookmarks or favorites feature.

Printing Maps

There are two methods of printing your maps. One method is using the PRINT function on your browser toolbar. This method prints the entire browser display. For a more professional display choose PAGE SETUP on your Viewer's popup menu. A dialogue box appears and allows you to rename your map, show legend, scale, date and time, URL, north arrow, and specify the map size by scale. Once you are satisfied with the page setup, select the PRINT feature in the popup menu and press OK.

Copying Maps

To copy a map into another application, choose the COPY toolbar button or right-click and choose COPY from the popup menu. Once you have copied your map, switch to the application in which you want to paste the map view. Choose EDIT, then PASTE. You are now ready to manipulate the map with the tools of your target application, such as CorelDraw. This process will not copy over the map legend.

To copy the entire Viewer display press the 'PRINT SCREEN' Key on your keyboard. Switch to the application that you want to paste this view, then choose EDIT, then PASTE.

NOTE:

With MG 6 Viewer it is not possible to copy/paste into CorelDraw 5, 8, 9 or 10, but it is possible to copy/paste into CorelDraw 4 or 7. MG 5 copies to the clipboard as EMF (enhanced metafile). Earlier versions copied as WMF (windows metafile). Software (e.g. Metafile Companion <http://www.companionsoftware.com/>) is available to translate file formats from EMF to WMF. With this software you can cut/paste from the MapPlace to Metafile Companion to Corel in a two-step process. Objects can also be inserted into Corel (use Edit, Insert New Object, Enhanced Metafile). Metafile Companion handles the vector layers well but not raster. Pasting maps into MS Word or PowerPoint are also good options to consider.

Success with vector and raster layers can be achieved by using Adobe Acrobat to print as a PDF file and importing the file to applications such as Corel. To capture the Legend create your map in MapPlace and print using the Acrobat PDFWriter driver. This will write a PDF file with the legend and map. Use the Text or Graphic Select Tool in Adobe Acrobat to capture the legend or map in the PDF file. It can then be pasted into other applications.

This method copies maps to PowerPoint then Corel: Create a map view in MapPlace. Right click on the map and copy the image into the clipboard. Open a blank presentation and blank slide in PowerPoint. Convert the imported picture into a Microsoft Office drawing object. This can be done by Edit Picture Object or right click and select Grouping Ungroup. Select All objects on the image and paste into Corel.

AVAILABLE MAPS

The MapPlace has 22 theme-based maps. The **BCGS Geology Map** can access all available provincial datasets, whereas the other maps focus on particular areas or themes, such as detailed and surficial geology, geophysics, and geology map indexes. Other maps, such as the **Exploration Assistant** allow users to search and display elements of 4 main databases. Each map has a link to more details, which provide further information, such as unique layers, special instructions to view certain features, type of projection used, etc. Descriptions of these maps, with examples of their use, are presented here.

Maps Currently Available:

- BCGS Geology Map
- Exploration Assistant
- Mineral Titles Map
- World Map
- Canada Map
- USA Map
- Jennings River Geology Map
- Barkerville Geology Map
- Lillooet LRMP Map
- Guichon Batholith
- Vernon Geology Map
- Aggregate Potential Map
- Terrain Map Index
- Digital Terrain Map Library
- Regional Geophysics Map
- Relief and Radar Map
- Southeast BC Geophysics Map
- Petroleum Tenure & Wells Map
- Coal Map
- BC Geology Map Index
- GSC & GSB Geology Map Indexes
- Mineral Activity Maps: Coal Operations, Metal Operations, Refining & Smelting, Industrial Minerals
- General BC Map

BCGS Geology Map

This map is projected in Albers Equal Area for BC. It provides access to all provincial datasets and geology layers. [Figure 8](#) displays the available layer groups (collapsed). This map provides the most flexibility for the combination of available datasets. The Legend Window to the left of the map is organized into Layer Groups. Look for the expanded geology, mineral occurrence, ARIS and mineral title layers at the bottom of the legend window. Administrative layers are at the top. Topographic layers, including TRIM, are in the middle of the legend window. Two sets of Mineral Potential layers are available, a shaded version above the geology layers and a solid version below the geology layers. Map codes were recently

rationalized and new updated sedimentary, volcanic, metamorphic, intrusive and ultramafic geology layers were added. Lithologies are displayed and reported by age and rock type. Geology is compiled at a 1:250K scale. Compilation scales may be shown with the legend label; scales in brackets, e.g. (<1:1.2M) or (<300K), are the scales, shown in the lower right part of the map, at which the layer is visible.

Bedrock geology layers are visible under 1:1.5 million scale. Legend reports are attached to the layers which included Faults and Contacts; Geology polygons coloured by age and rock class (sedimentary, intrusive etc.); Geology polygons hatched by rock type (this hatch pattern is transparent and can be superimposed on raster images); Geology labels based on the lithostratigraphic map unit. The cursor flyout also has information on the map unit represented by each polygon, plus it gives the poly-id and previous keycode so that geologic revisions can be done for specific polygons.

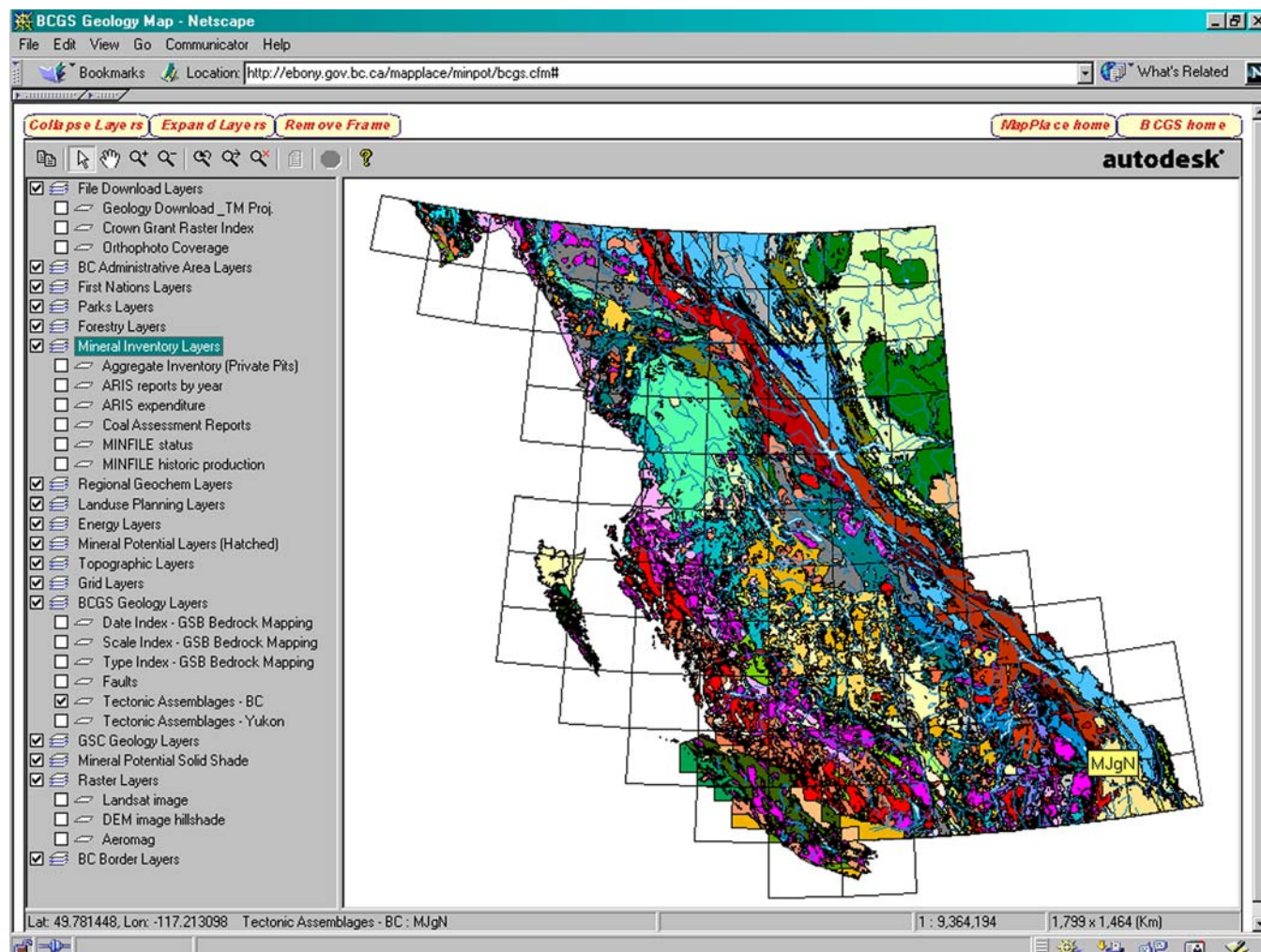


Figure 8. Available layer groups (collapsed) for the BCGS Geology Map are shown in the left hand of the window frame.

To access the Geology Downloads click on the appropriate theme at the top of the legend and double click on the map area of interest. The resultant page display will provide access to the digital files in ArcInfo EXPORT (E00) format in either Albers Equal Area Polyconic or Geographic (decimal degrees) projections. The datum is NAD83. Click on the item you require to download the zipped files. To use the files as shape files they can be translated using the Import71 utility that comes with Arcview. Metadata for the geology of the whole province is also available on this page as a downloadable file (geolmeta.zip). A readme file describes the download files. To interactively view the bedrock geology with MapPlace, select the Interactive View of the map sheet in either projection and the NTS area will be displayed.

The TRIM (Terrain Resource Information Management) layers are visible at a zoomed scale of 1:100,000, include Transport Structures, Rail, Roads, Rivers, Lakes, Land Cover and Contours in two layers. Aquifers in British Columbia, from Ministry of Water, Land and Air Protection, are available in two layers (above 1:2 million and below 1:2 million scale). Some of the aquifers are directly linked (double click) to the Aquifer Image Portfolio.

Recent additions to the BCGS Geology map include: Geologic Terranes and Geologic Tectonic Assemblage layers; links to 85 1-metre pixel digital orthophotos (turn on the Orthophoto Coverage layer at the top of the legend and double click the area of interest); pH of Waters, F in Waters and U in Waters layers; Geothermal Hotsprings, Boreholes, Rotary Boreholes and Potential layers. Additions being worked on include: links to Mineral Titles maps in PDF format; and links from the Bedrock Mapping Index layer to web publications.

Exploration Assistant

This theme map offers 5 different features to perform detailed queries that are displayed on the map. These features include: **Gazetteer** to find a location; **Discovery Potential** where Mineral Resource Assessment program predicted new deposits of specific types will be found; **MINFILE** by commodity or deposit type or name; **Regional Geochemistry** by provincial or mapsheet threshold; **Geology** by age, lithology and terrane; and **Mineral Titles** by claim name and anniversary date. This map has access to other databases such as BC Localities and Communities, Regional Districts, Regional Geochemical Surveys, Assessment Reports, Road, Railways, Rivers, Parks, and many others.

The following are examples of queries that can be performed through the Exploration Assistant: find a particular settlement, such as Gold Creek; display areas favourable for garnet skarns; show the location of the Eskay Creek deposit; plot all Jade occurrences; plot the Placer deposits; zoom into an area and display Cretaceous age sedimentary rocks within any terrane; find the Flan claim; display all claims in an area with an anniversary date in the next 40 days. The Exploration Assistant is shown with a selection criteria and access tools in [Figure 9](#).

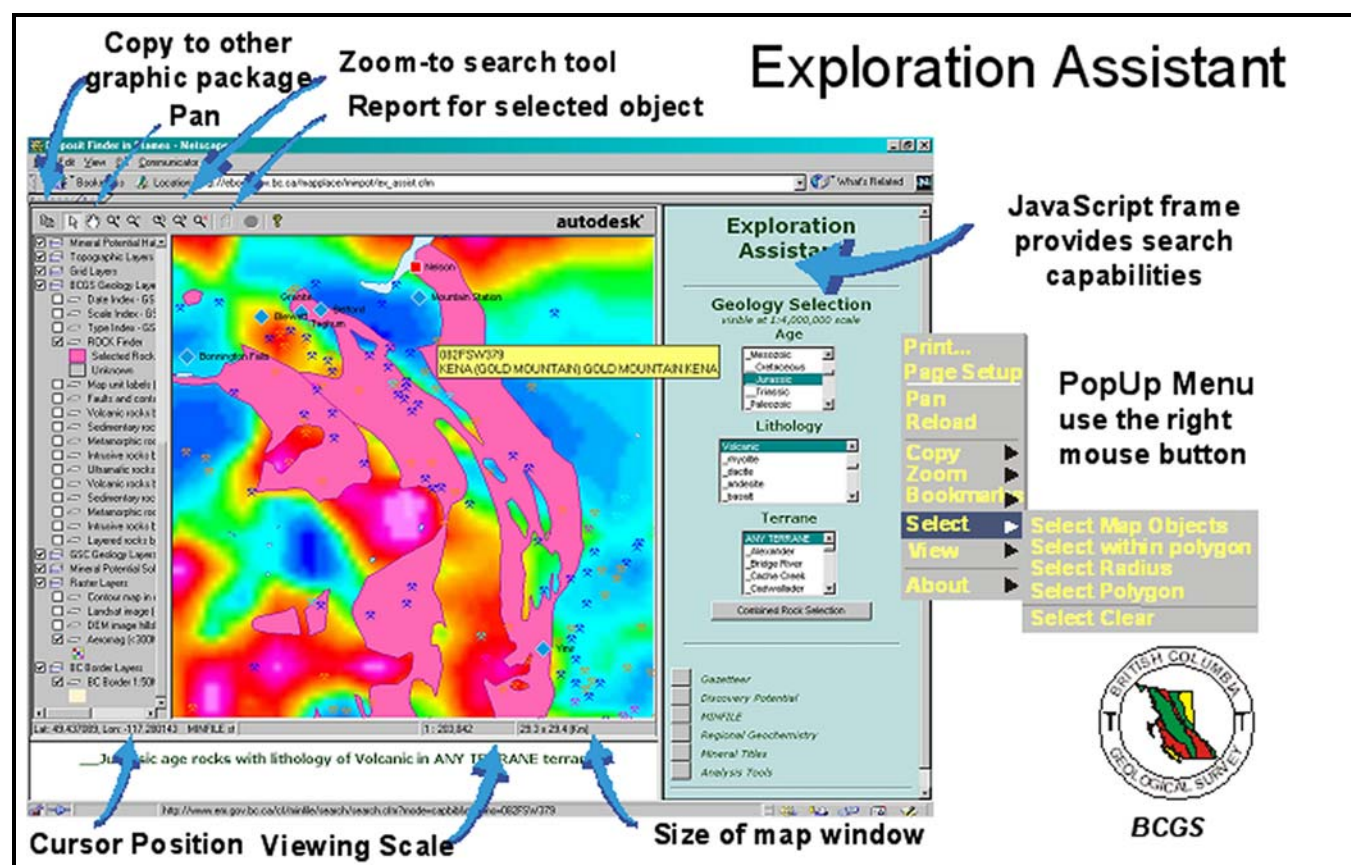


Figure 9. Exploration Assistant, displaying Geology Selection (Jurassic age, volcanic lithology, and any terrain), with an aeromagnetic back drop.

Mineral Titles Map

This map is viewed along with an additional window frame to allow users to conduct a number of Mineral Title related searches: **Tenure** searches by number, claim name, tag number, tenures staked by a person, and tenure owned by a person or company; **Free Miner** searches; **Maps** searches for a list of all tenures on a specific map and Mineral Title Maps on the web; **Lot** searches by number and Land District; **Form** searches for Mineral Tenure Act Forms and Applications; **Other searches**: Map Index, Tenure Statistics, Links to Mineral Titles Information, and Search Tips.

Mineral, Placer and Coal tenures layers are unique to this map and can be viewed at scale of 1:3,000,000 or less. Once these layers have been selected, users can use the SELECTION function on the toolbar buttons, and double-click on any map tenure area to search the database for that particular tenure number (Figure 10). The lower window frame will display related information about the selected tenure as well as provide links to gain access to further information.

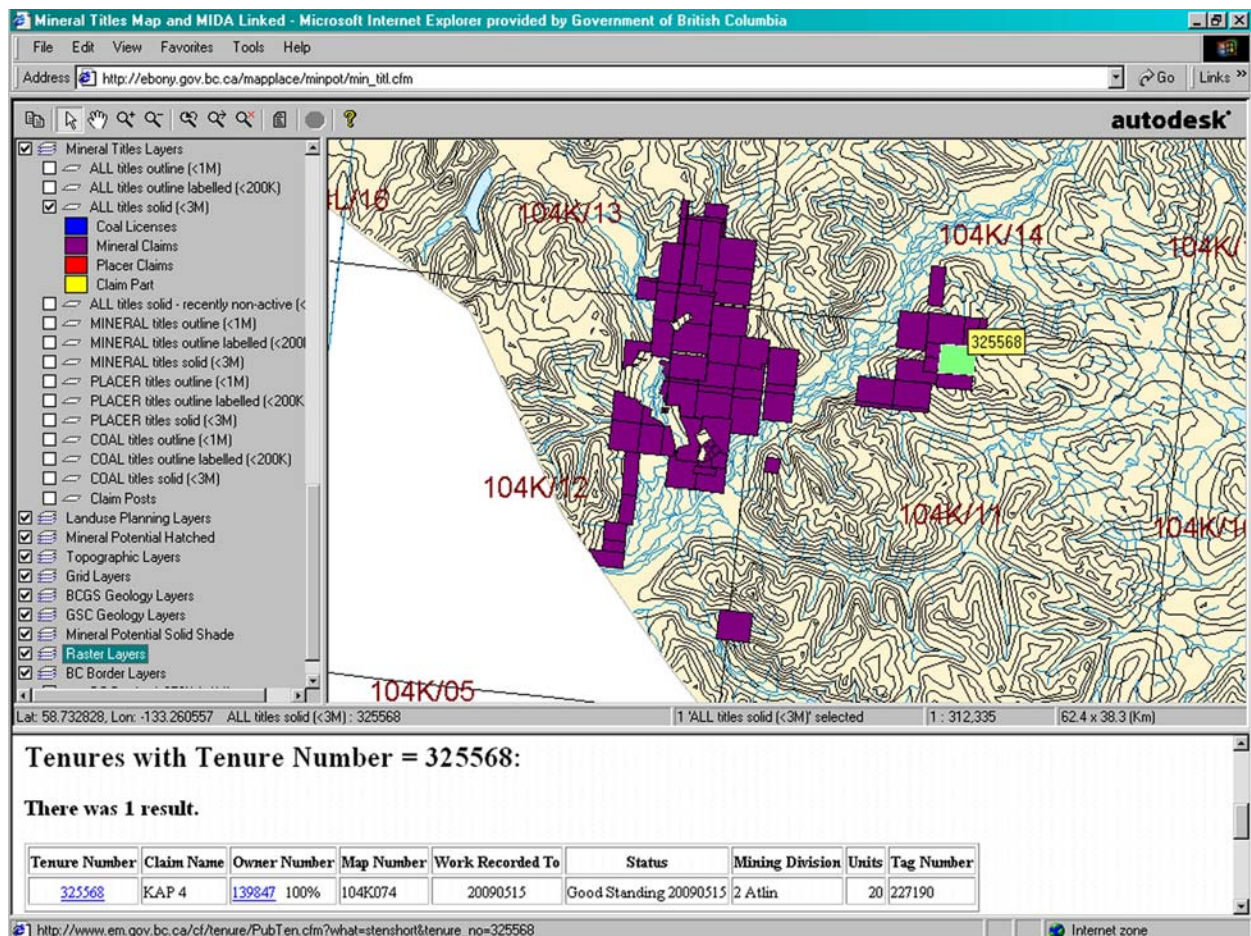


Figure 10. All Titles Solid layer selected. Double click tenure number 325568 with the SELECT tool. The lower window frame provides information and links to this tenure.

A **ZOOM GOTO Mineral Tenure Number** is also available to locate tenures on the map (Figure 11). Right click on the map to display the Popup Menu, select ZOOM, then from the submenu select ZOOM GOTO. A ZOOM GOTO window will appear and in Category use the pull down menu to choose Mineral Tenure Number. Enter the tenure number in Location and click OK. Due to the large size of the Tenure data source, the ZOOM GOTO may take up to a minute to display the tenure map area. Turn on the Mineral Title Layer and the tenure number specified in the GOTO dialogue box will be displayed on the map. Double clicking on the tenure will link to MIDA for a report on the tenure. A Mineral Titles Claim Name layers, visible at 1:50K scale, is available in the Mineral Titles Layers group.

Crown granted two post claims are available in raster format for downloading or viewing Figure 12. To access this layer turn on the Crown Grant Raster Index Layer and double click on the map area of interest. The lower frame window provides the user with the option to download one of the two possible half sheets for use in some graphics program; the window can also be used to view the maps interactively and integrated with other MapPlace data. When choosing to interactively view the Crown Grant Raster Index Layer, a new Viewer window will open up allowing further data to be added. The Crown Grant Raster maps are displayed with a UTM83 projection, so caution must be exercised as one nears the UTM zone boundary.

A Mineral Titles download layer to link to 082F Mineral Titles maps in PDF format (full coverage will follow) is available at a 1:1.5M scale. Turn on the Mineral Titles PDF 082F layer in the File Download Layers group at top of the legend. Double click on the 1:20K map area and the PDF file will open in the lower frame. Frames can be adjusted for viewing. Adobe Reader must be installed for this feature. See Figure 13 for an example of the PDF map and Figure 14 for the same area in MapPlace.

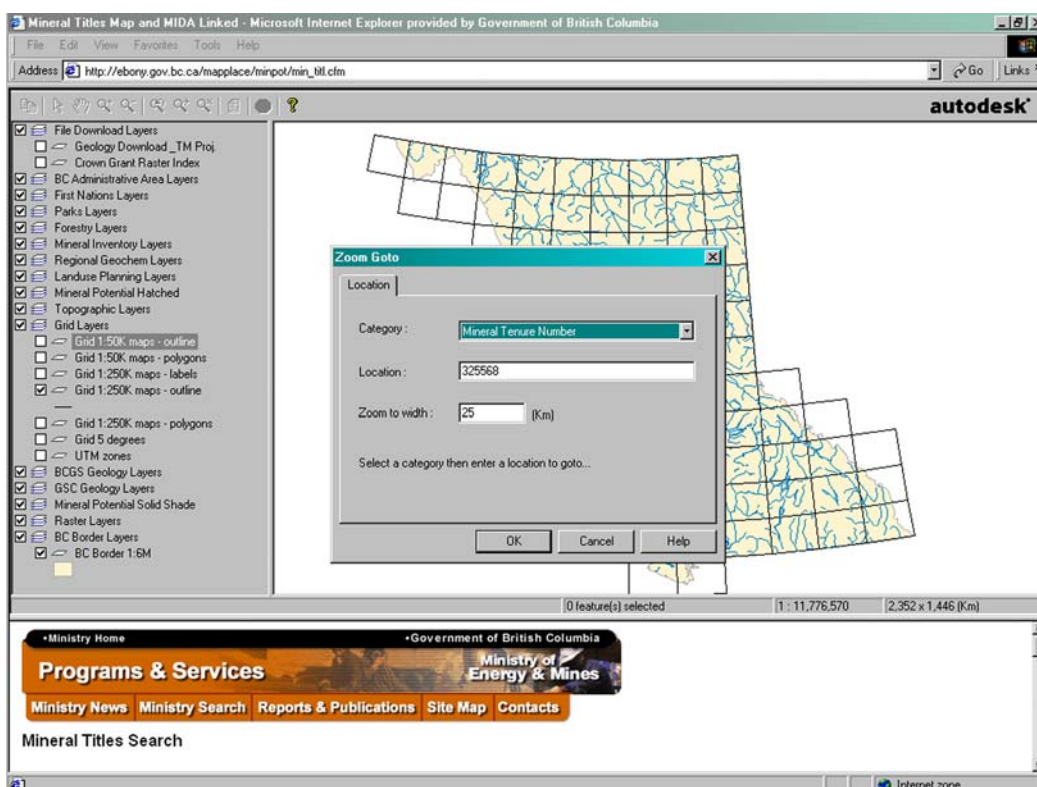


Figure 11. ZOOM GOTO window displayed with an example of information required to view a particular Mineral Tenure Number on the map.

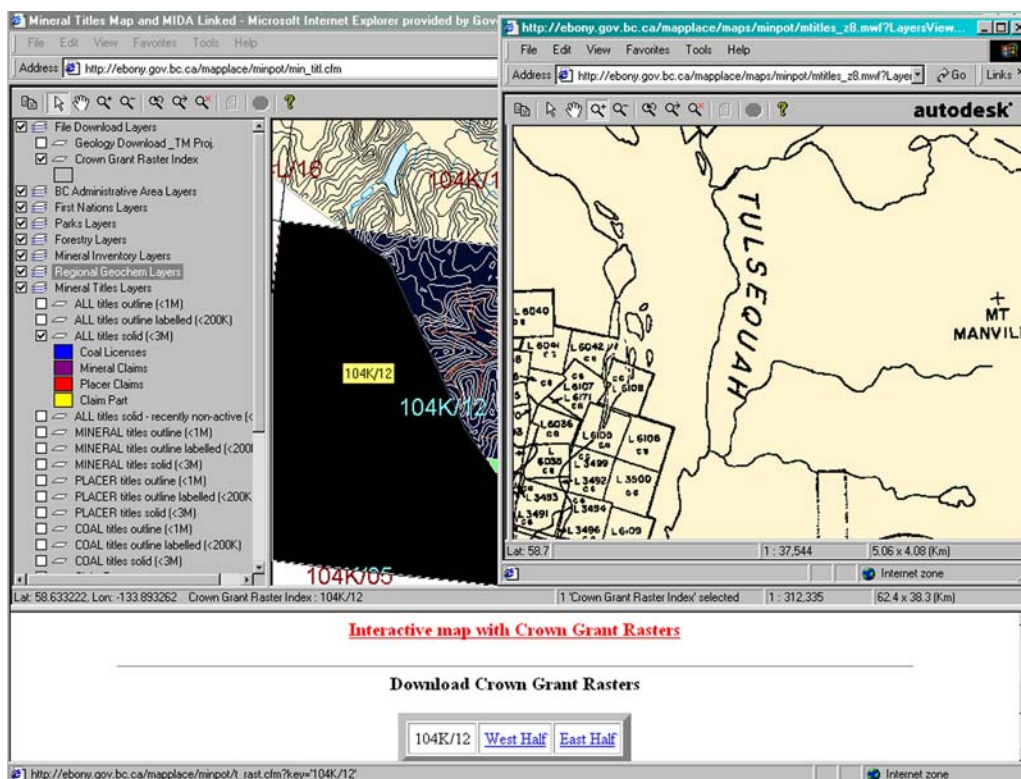


Figure 12. Crown Grant Raster Index layer selected and double click on the NTS map sheet using the SELECT tool. The lower window displays link to download or view the NTS map.

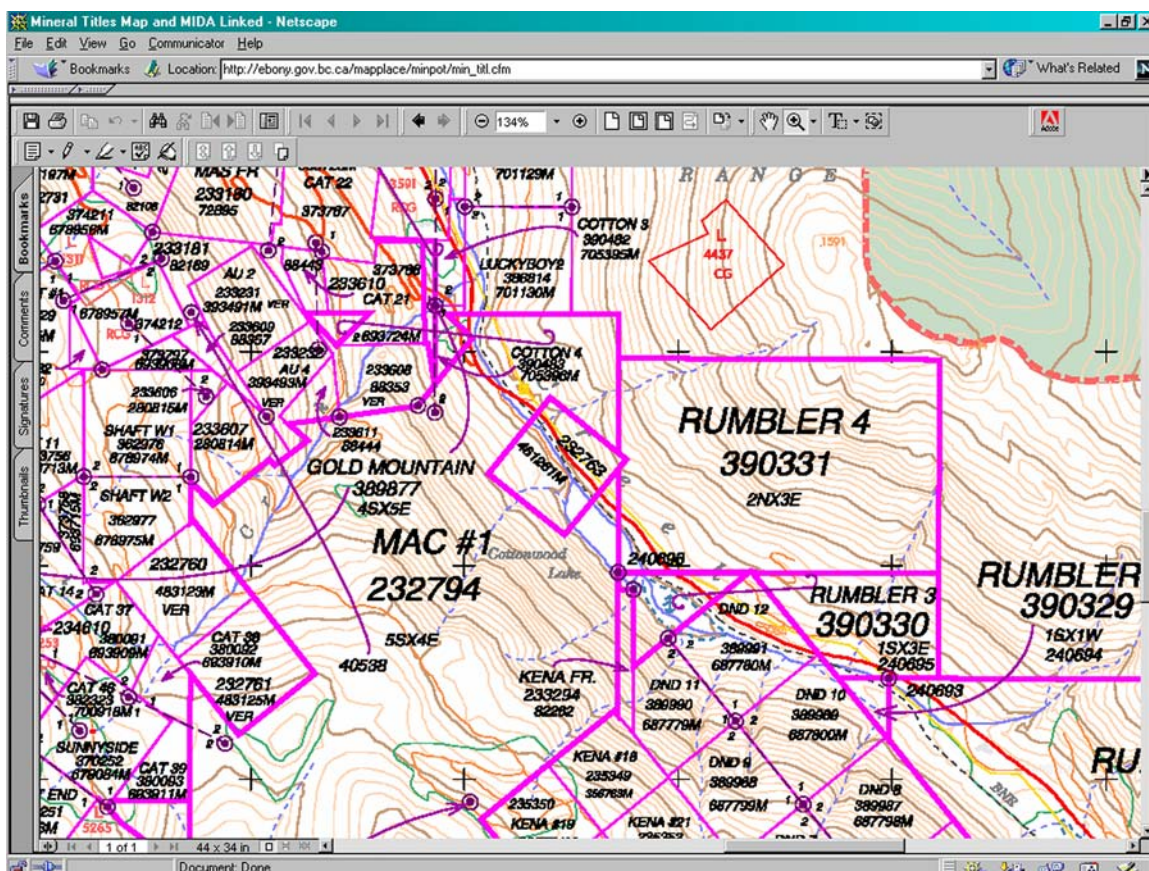


Figure 13. Mineral Titles maps in PDF format.

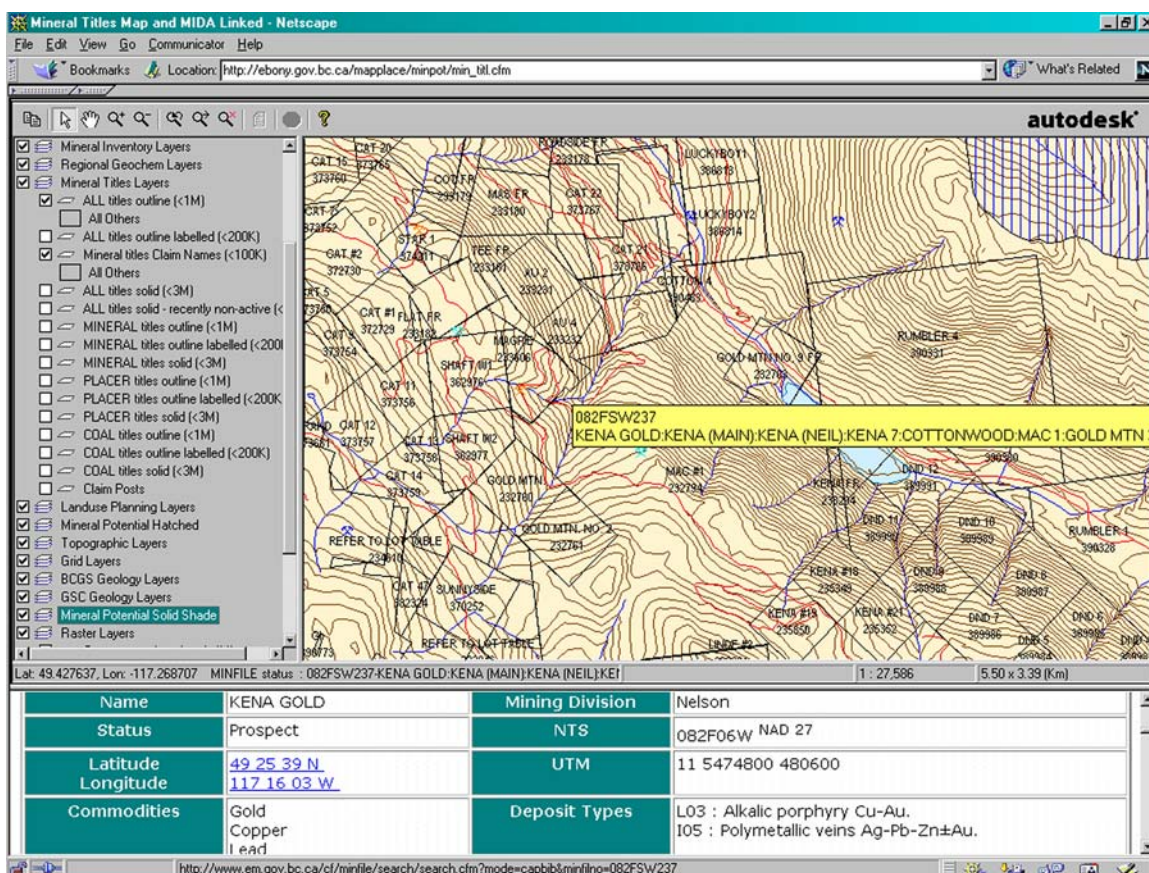
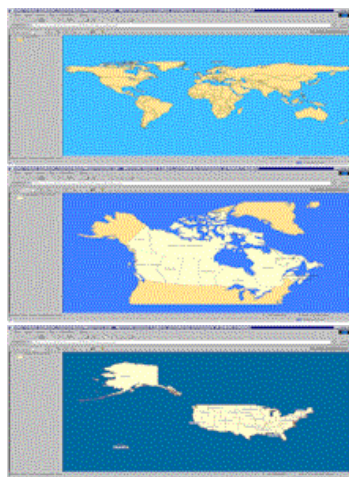


Figure 14. Mineral Titles maps in MapPlace showing contours, claim name labels and link to MINFILE.

Virtual World Maps



Virtual World Map

This is a MapGuide demonstration map of the World. It provides excellent information for the whole world including 1000' contours for most places, roads, towns, railways etc.

Virtual Canada Map

This is a MapGuide demonstration map of Canada. It provides a good reference map of Canada with strong location search capabilities, such as the ZOOM GOTO Places or Airports anywhere in Canada. Street names are also available for major cities.

Virtual USA Map

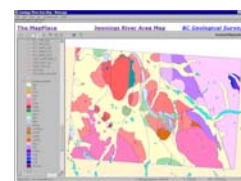
This is a MapGuide demonstration Map Data of the USA with Demographics. The ZOOM GOTO feature allows you to view locations by Street Addresses, Places, or Zipcodes anywhere in the USA. View Interstates, Recreational areas, Major Retail Areas and much more. Demographic reports can be generated from selected objects.

Selected Theme Maps

There are 17 Selected Theme Maps and they contain most of the layers found in the BCGS Geology Map, but also contain layers unique to their theme. Some of these maps when opened will already be zoomed into an associated geographical area.

Jennings River Geology Map

This map is displayed in Albers Equal Area projection and includes the Jennings River area (NTS 104O/14E and 15) geology. The detailed map features: Station Points, Features and Labels; Geology Lines, Polygons (stippled and solid) and Labels; Outcrops; and Eskers. The geology of Open File 2001-6 was by J. Nelson, T. Harms, C. Roots, M. Mihalynuk and M. de Keijzer.



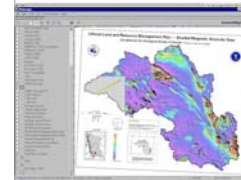
Barkerville Geology Map

This map covers the Barkerville area (NTS maps 093A and H) and unique layers include the Barkerville Cariboo and Kootenay terranes.



Lillooet LRMP Map

This map covers NTS maps, 092IW, 092J and 092O (south) and is displayed in the Universal Transverse Mercator projection. In addition to the standard data sets, this map has a Lillooet LRMP layer, DEM image hillshade layer, a magnetics map layer, and a magnetics raster map with legend.



Guichon Batholith Map

This map covers NTS map 92I and is displayed in BC-Albers projection. Unique data layers include the Guichon Magnetic Linears, Guichon Geology Transparent, and Guichon Geology. Mapping was performed by W. J. McMillan, J. D. Blanch-Flower, P. McAndless, D. Coombes, P. Garvin; 1969-1974 and linework digitally captured by Cominco Ltd.



Vernon Geology Map

This map covers NTS maps 082L03, 06, 11, 13, 14 and is displayed in the Universal Transverse Mercator projection. Unique layers to this map are Geology Unit, Lines, Structures, Mapping Stations, and Ages in the Vernon Area.



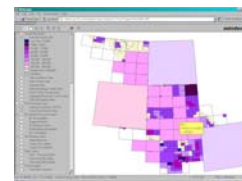
Aggregate Potential Map

This map displays the results of five aggregate potential study areas: Prince George, Okanagan, Nanaimo, Sea-to-Sky and Sunshine Coast. The North Coast study is available for download. Each of these study sites are organized into four layers under the Aggregate Potential layer Group. Photos of aggregate pits are available mainly in the north part of the Sea-to-Sky study area. To view the photos, use the select tool and double click if a hand shows while on the pit symbol. Links to the Aggregate Projects and downloads are available in the *PopUp Menu on the Map*.



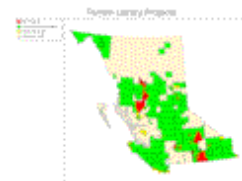
Terrain Map Index

This publication provides a compilation of data pertaining to surficial geology/terrain maps of British Columbia. This includes data on about 2000 maps covering territory within the provincial boundaries of B.C. The database is presented both as a tabulated listing, and graphically in a series of provincial base maps. The tabulated database presents the location in relation to the National Topographic System, scale and agency involved. This hardcopy report is available from Crown Publications.



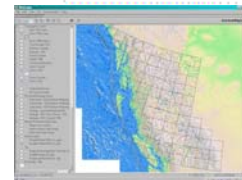
Digital Terrain Map Library

The Introductory Map acts as a graphical index to the Digital Terrain Map Library, which provides terrain and slope stability related maps in digital format, interactive viewing and raster downloads.



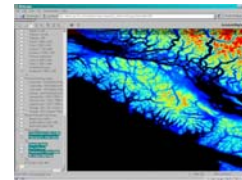
Regional Geophysics Map

This map is projected in Lambert Conformal Conic, NAD 27. Unique layers to this map are Gravity, Aeromagnetics, Landsat and DEM Shaded Relief. These images come directly from the Cordlink, a collaborative knowledge network initiative between the Geological Survey of Canada and its provincial/territorial and academic partners in western Canada.



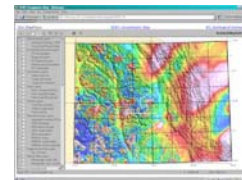
Relief and Radar Map

The Relief and Radar Map contains a colour shaded relief map based on the GTOPO30 data set and a radar mosaic for the southern portion of the province. More detailed colour relief, radar mosaic and digital elevation model (DEM) layers are available for Vancouver Island. These raster layers are from GeoGratis (National Resources of Canada), a web site and FTP site that distribute geospatial data of Canada free of charge.



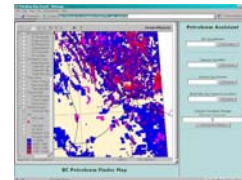
Southeast BC Geophysics Map

The Southeast BC Geophysics map is displayed in UTM-NAD 83 projection and contains three unique layers geophysical layers: Kootmag, Magnetism and Thorium ratios. These layers are from the Geological Survey of Canada Pacific Geoscience Centre. A sample detailed orthophoto (1 metre pixels) is available for area 082F.099 at scale of 1:35,000.



Petroleum Tenure & Wells Map

This map displays northeastern BC Petroleum and Natural Gas well locations, tenure, PNG grid, oil & gas fields, and major pipelines. displays northeastern BC Petroleum and Natural Gas well locations, tenure and major pipelines. Tools allow users to query tenure owner, tenure number, range of tenure numbers or BC Gazetteer locations in the right window frame. This queried information can be displayed on the map.



Coal Map

This map features Coal Geology layers, databases from COALFILE and links to Coal Assessment Reports in PDF format on the map. Coalfield maps in PDF format are linked to reports with a summary of the Coalfield, links to coal deposit descriptions in MINFILE and the Coalfield maps in PDF format.



BC Geology Map Index

This map is displayed in Albers Equal Area Projection. This map contains most of the layers found in the BCGS map, as well as the following Index Map layers: Surficial Mapping Index, Regional Geochemical Survey Index, MINFILE Index, and B.C. Geological Survey of Bedrock by Date, Scale and Type.



GSC & GSB Geology Map Indexes

This map of the World is zoomed into Canada and is displayed in Mercator projection. This map contains map index layers from the Geological Survey of Canada (GSC) and B.C. Geological Survey (GSB), as well as a volcano, world countries, major cities layer, U.S. Cities, States and Interstates layers.



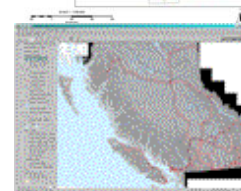
Mineral Activity Maps

These maps display locations of mining, coal, industrial mineral, refining and smelting operations.



General BC Map

This map displays base map features, without geoscience data. This map is useful for viewing base map layers in BC. It features Administrative, First Nations, Parks, Forestry, Topographic, Aquifers and Grid layers. It also has the LandSat and DEM Image Hillshade Raster layers



GEOSPATIAL DATA DOWNLOADS & LINKS

Geospatial files are available for downloading. File formats are zipped ARC Shapefiles in NAD 83 and either BC Albers or Geographic (decimal degrees) projection. Some files are in dBASE format. These files can be used with most GIS systems or the free ArcExplorer.

Date	Data (with Home Page links & more downloads)	ARC Shapefiles BC Albers (size zip; shp MB)	ARC Shapefiles Geographic (size zip; shp MB)
Dec. 2001	Bedrock Geology ... ArcView Data Files in .E00 format	bedrock_bc_alb.zip (32; 150) faults_bc_alb.zip (4; 39)	bedrock_bc_dd.zip (26; 150) faults_bc_dd.zip (3; 38)
1998	Tectonic Assemblage Geology Tectonic Belts & Terranes	tectassem_bc_alb.zip (14; 18) tecbelts_bc_alb.zip geoterranes_bc_alb.zip	tectassem_bc_dd.zip (16; 18) tecbelts_bc_dd.zip geoterranes_bc_dd.zip
1998	BCGS Geology Map Index		gsbindex dbf.zip
1998	Mineral Potential polygons	minpot_bc_alb.zip (6; 9)	minpot_bc_dd.zip (5; 9)
Dec. 2001	Mineral Occurrences - MINFILE ... more downloads	minfile_bc_alb.zip (1; 17)	minfile_bc_dd.zip (1; 17) minfile_dbf.zip (1; 9)
Dec. 2001	Assessment Report Index - ARIS ... more downloads ... report downloads ... Metadata for ARIS.DBF	aris_bc_alb.zip (1; 6)	aris_bc_dd.zip (1; 6) aris_dbf.zip (2; 17)
Feb. 28, 2001	Mineral Occurrences - MINFILE in .DBF format Assessment Report Index - ARIS in .DBF format		minfile_dbf.zip (1; 9) aris_dbf.zip (2; 17)
May 2001	Regional Geochemistry ... RGS Summary & Downloads	rgs_bc_alb.zip (6; 63)	rgs_bc_dd.zip (6; 63)
	Mineral Tenure Sample PDF Maps	Contact Mineral Titles Branch	
2001	Coal Report Index - COALFILE ... more downloads Coalfields	coalrpts_bc_alb.zip coalflds_bc_alb.zip	coalrpts_bc_dd.zip coalflds_bc_dd.zip
1996 - 2002	Aggregate Potential Data	see Aggregate Download Page	
Nov. 2001	BC Parks	parks_bc_alb.zip (14; 18)	parks_bc_dd.zip (13; 18)
	Rivers, lakes, roads, coast, cities (1:2M scale) ... see GeoGratis , NRCan	rivers_bc_alb.zip lakes_bc_alb.zip roads_bc_alb.zip coastline_bc_alb.zip (2; 4) sea_bc_alb.zip (3; 4) cities_bc_alb.zip	rivers_bc_dd.zip lakes_bc_dd.zip roads_bc_dd.zip coastline_bc_dd.zip (2; 4) sea_bc_dd.zip (2; 4) cities_bc_dd.zip
	Borders & 1:250K NTS grid	border_bc_alb.zip ntsgrid_bc_alb.zip neatline_bc_alb.zip	border_bc_dd.zip ntsgrid_bc_dd.zip neatline_bc_dd.zip

Notes & Links: Metadata is in compilation. Figures in brackets are file sizes in megabytes (MB) of the zipped and unzipped SHP files, respectively; file sizes less than 1 MB are not shown.

ZIP files require PKUNZIP or WinZip, available at www.pkware.com or www.winzip.com

WORKING EXAMPLES

Exercise #1- GSB Website

The MapPlace - Netscape

File Edit View Go Communicator Help

Bookmarks Location: <http://www.em.gov.bc.ca/Mining/Geosurv/MapPlace/default.htm> What's Related

The MapPlace

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The FREE Autodesk MapGuide viewer is required to access "The Map Place". Click on the Autodesk icon at the right to acquire the viewer.

[Download & Install Instructions](#)

[MapGuide Viewer Guides: R6, R5, Demo Site, Tutorial](#)

[Go to Autodesk MapGuide Site](#)

Features of the MapPlace

- Create your own maps using interactive data sets.
- Create reports from selected themes and objects.
- With **EXPLORATION ASSISTANT**, you can search by:
 - Mineral Potential TRACTS
 - MINFILE (commodities, names, and deposit types.)
 - GEOLOGY (age, lithology, and terrains)
 - CLAIMS (anniversary dates)
- [Links to other Data Sources and Information](#)
- [Geospatial Data Downloads](#) - ARC Shapefiles
- [Complete Table of Maps](#)
- [General Map of BC](#)

For questions or more information on geology and minerals in British Columbia please contact [GSB Mailbox](#) or use the [toll free number](#) (B.C. residents only).

<http://www.mapguide.com>

1. MapPlace Home Page

MINFILE

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MINFILE contains geological, location and economic information on over 12,000 metallic, industrial mineral and coal mines, deposits and occurrences in B.C.

New & Recent Postings

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- [NTS Areas and Mining Camps](#) [Publication List](#)
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- [Jade / Natural Stone](#)
- [Guide to Mineral Information](#)
- [Conversion Factors](#)

Related Links:

- [ARIS](#) - search and information on mineral exploration Assessment Reports.
- [Mineral Statistics](#) - metals, coal and industrial minerals.
- [Mineral Titles](#) - searching details on mineral tenures.
- [The MapPlace](#) - interactively view MINFILE and other GSB databases.
 - [Tour of the MapPlace](#)
- [Quick Access to BC Minerals Information](#) - website for Roundup 2001.

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The British Columbia Geological Survey Branch has over 26,000 approved mineral exploration assessment reports filed by the exploration and mining industry since 1947. These reports provide information on geological, geophysical, geochemical, drilling and other exploration-related activities throughout B.C. Paper copies of the Assessment Report Index, Assessment Report Index Maps and original and/or microfilmed assessment reports (approved and off-confidential status) can be viewed at **provincial government offices** throughout the province. Assessment reports can be **purchased** as photocopies, microfiche and on CD.

The Geological Survey Branch (GSB) maintains a computer-based Assessment Report Indexing System (**ARIS**) which provides ARIS data for interactive viewing along with other GSB databases at **The Map Place**. To download the ARIS data free of charge see **ARIS Data Download**. As of January 1999, we have incorporated several **ARIS Searches** into this site, including the ability to import text files containing assessment report numbers. All reports released after September 1998 are available for viewing on this Web site and on CD.

New to our site are the **codes** utilized by the ARIS database.

Visit the **MINFILE** site for searching and information on Mineral Occurrences in B.C.

2. Visit MINFILE Home Page

3. Visit ARIS Home Page

Mineral Titles Search by Owner

The mineral tenure information at this site was last updated on the morning of **May 27, 2002**.

Tenure Type: ☐ All ☐ Mineral Only ☐ Placer Only ☐ Coal Only

Standing: ☐ All ☐ Good Standing Only ☐ Forfeited Only

Insert the name of the person or company (Surname first: eg. "Smith, John")
(Insert a partial name for a list of all names beginning with the characters entered - max 600 results)

OR Insert the Client Number of the person or company

then

Shortcuts: [[Main Menu](#)] [[Free Miner](#)] [[Tenure Number](#)] [[Owner](#)] [[Locator](#)] [[Map](#)] [[Claim Name](#)] [[Tag Number](#)] [[List](#)]

Last date page updated July 04, 2001.

Regional Geochemistry

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Click on Area of Interest to View Survey Data

Completed RGS Surveys - [Summary Table of Downloads](#)

Click Here to Download Complete RGS Data Set
(51 MB zip file)

RGS Summary

The B.C. Ministry of Energy, Mines and Petroleum Resources (MEMPR) has been involved in reconnaissance-scale stream sediment and water surveys since 1976. This joint federal-provincial initiative was originally referred to as the Uranium Reconnaissance Program (URP). In 1978 the provincial program was renamed the Regional Geochemical Survey (RGS) and in 1987 the Province began to independently administer surveys conducted in British Columbia. As part of Canada's National Geochemical Reconnaissance (NGR) program, the RGS program continues to maintain sample collection, preparation and analytical

4. Visit Mineral Titles Search Pages

5. Visit Regional Geochemical Surveys Home Page

GM2002-1 - Geological Survey Branch Mapping Project - Microsoft Internet Explorer provided by Government of British Columbia

File Edit View Favorites Tools Help

Address <http://www.em.gov.bc.ca/Mining/Geosurv/bedrock/maponline/dwfs/GM2002-1.htm>

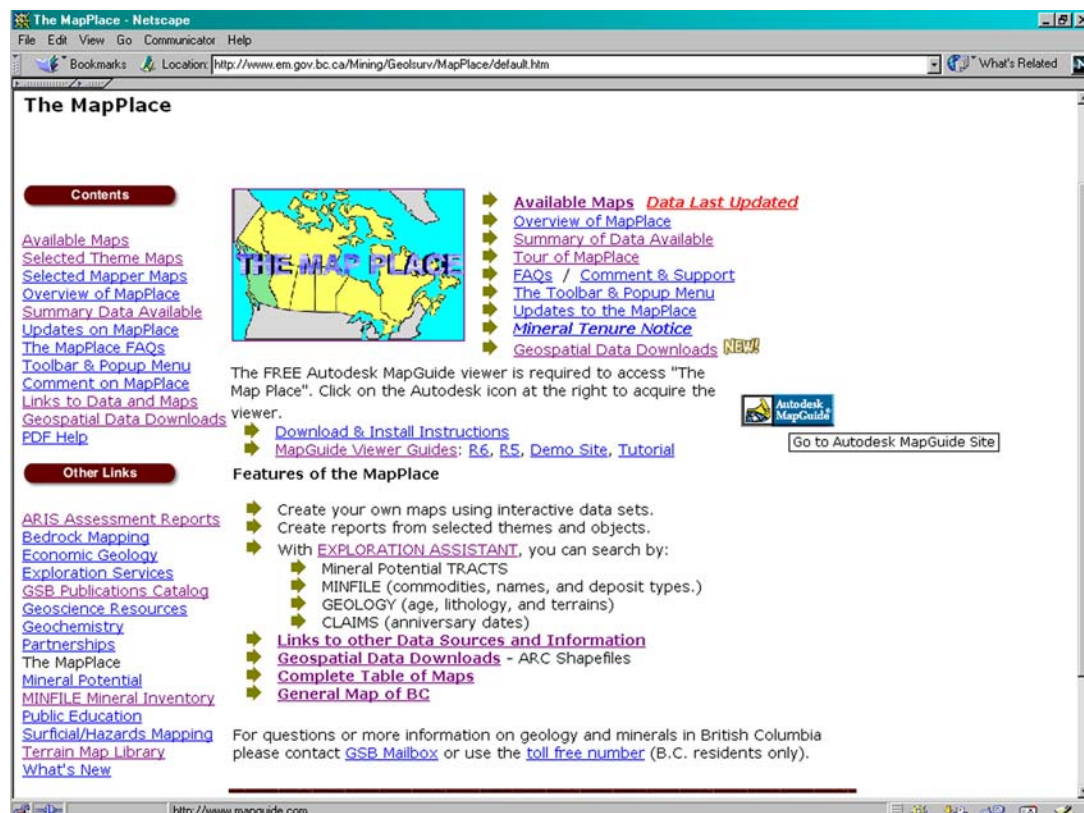
Geoscience Map 2002-1: Intrusion - Related Mineral Occurrences of the Cretaceous Bayonne Magmatic Belt, Southeast British Columbia
(NTS 82/E,F,G,J,K,L,M,N)
Compilation by James Logan

Map navigation controls: Pan (arrow keys), Zoom (PageUp/Dn), Zoom Rectangle, Fit to Window, Home, Layers..., Named Views..., Location..., Full View, Highlight URLs (Shift), Copy (Ctrl+C), Print... (Ctrl+P), Save As..., About WHIPL..., Forward, Back.

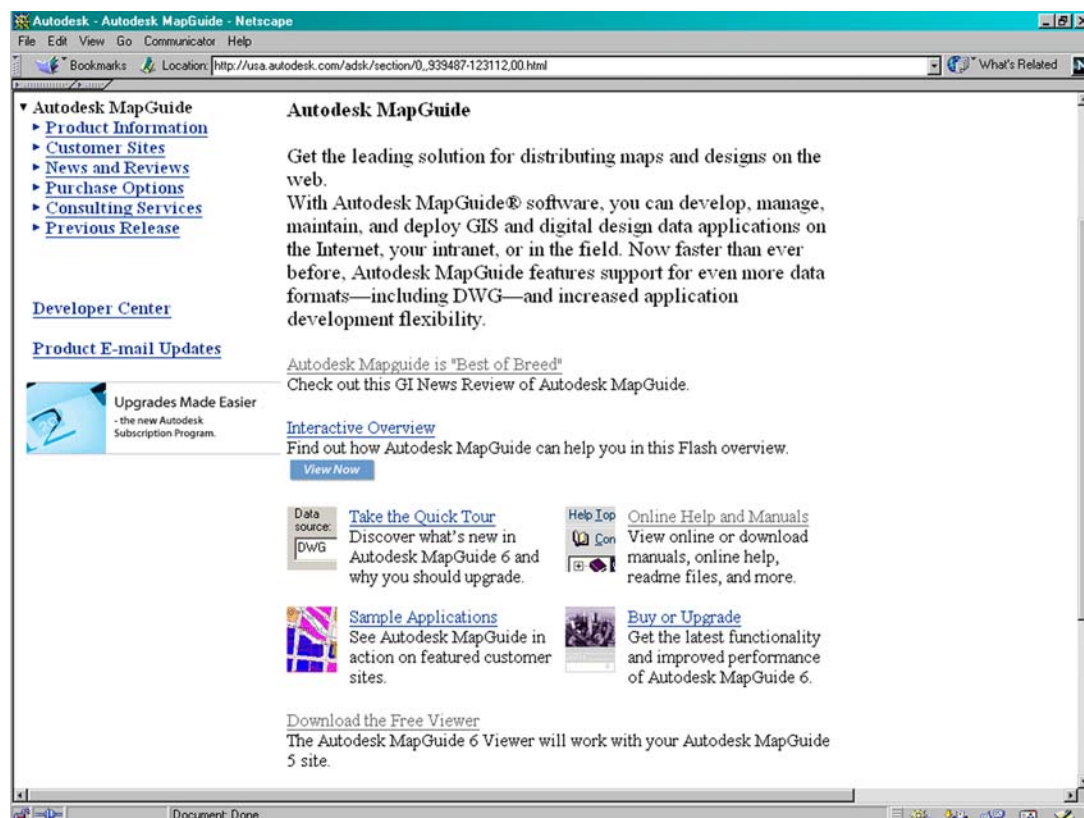
Rubber Band Box Zoom Internet zone

6. Visit Bedrock Mapping for ACAD Maps Online

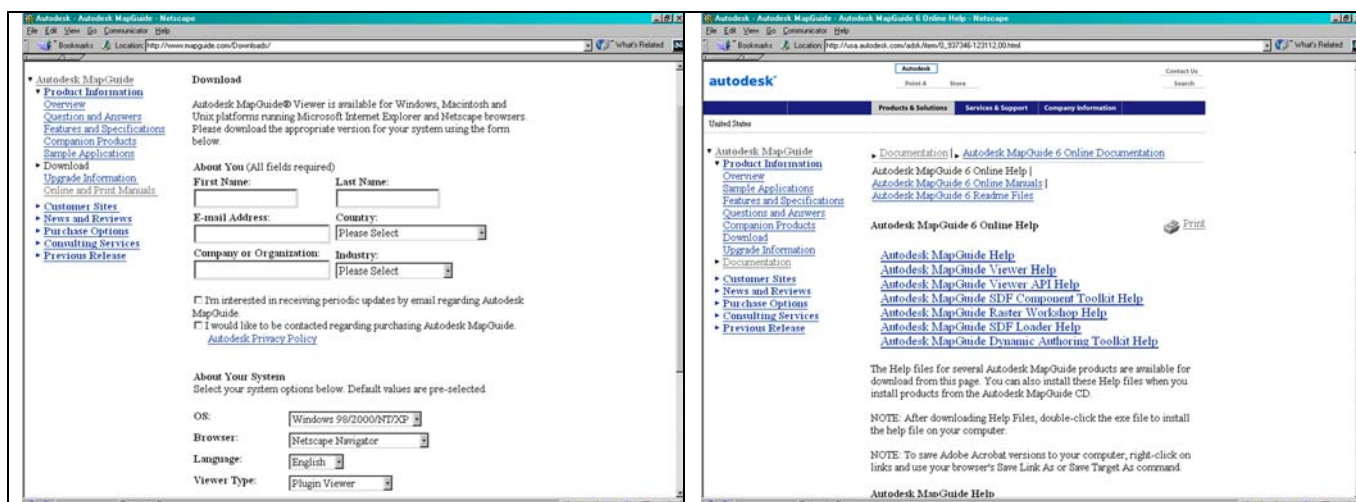
Exercise #2 - Download Viewer & Support Documents



1. View of the first page of the MapPlace web site with the ICON link to Autodesk MapGuide to download the plug-in for the MapGuide viewer.

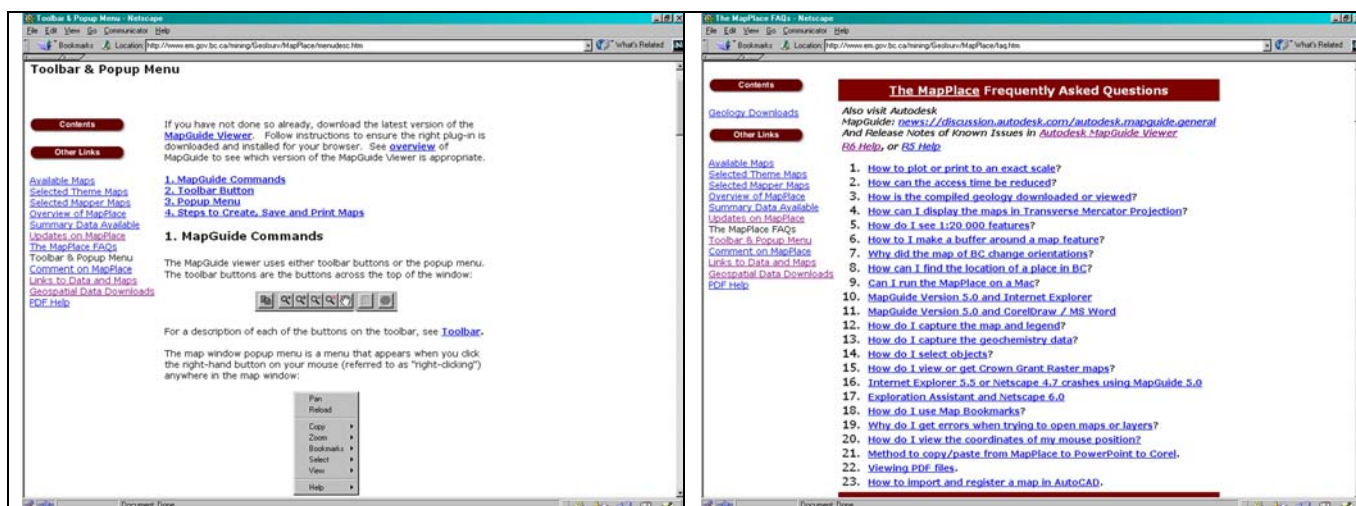


2. Autodesk MapGuide site: Click on 'Free Viewer Download' to download viewer.



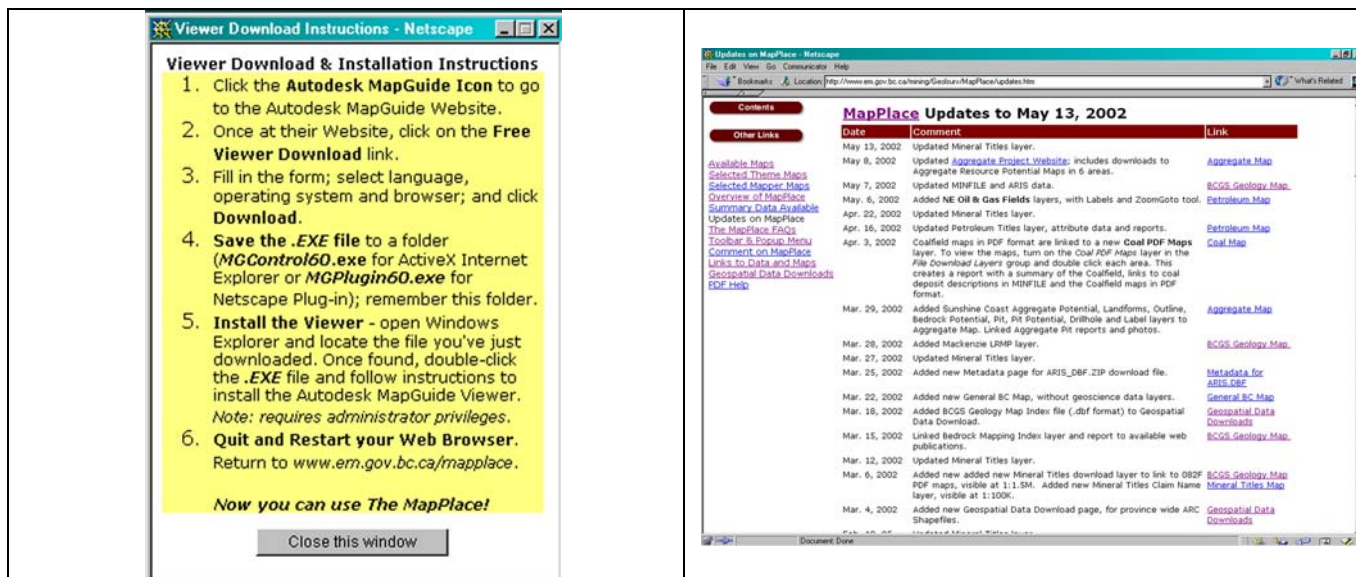
3. Go through step one to four and pick the correct viewer to download. Once the executable viewer file is downloaded double click on it to install the viewer.

4. On-line documentation for AutoDesk MapGuide.



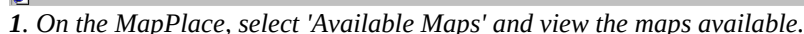
5. Tool Bar and PopUp Menu Help.

6. MapPlace Frequently Asked Questions (FAQ).



7. Viewer Download & Installation Instructions.

8. MapPlace Update log.



Exercise #4 - BCGS Geology Map

Available Maps - Microsoft Internet Explorer provided by Government of British Columbia

File Edit View Favorites Tools Help

Address <http://www.em.gov.bc.ca/Mining/Geosurv/MapPlace/maps.htm> Go Links

Ministry Home Government of British Columbia

Programs & Services

Ministry News Ministry Search Reports & Publications Site Map Contacts

Available Maps

Contents

General Map
Geology Map
Exploration Assistant
Mineral Titles

Other Links

Available Maps
Selected Theme Maps
Selected Mapper Maps
Overview of MapPlace
Summary Data Available
Updates on MapPlace
The MapPlace FAQs
Toolbar & Popup Menu
Comment on MapPlace
Links to Data and Maps

Available Maps

Selected Theme Maps
Summary of Data Available
Complete Table of Maps
MapPlace Home

BCGS Geology Map

The BCGS Geology Map has all the available provincial datasets including 1:20K TRIM, visible at 1:50K. The map also has DEM Hillshade, LandSat and Aeromag. A [Java Version for Mac](#) is available. Geology Maps and Crown Grant rasters are downloadable from this map. **New geology layers and reports are displayed by age and rock type.**

More Details
Mineral Tenure Notice

Exploration Assistant

Use this Provincial Map to query exploration related datasets

More Details

1. Open the BCGS GEOLOGY MAP by putting the cursor on the map and click.

BCGS Geology Map - Netscape

File Edit View Go Communicator Help

Bookmarks Location: <http://www.em.gov.bc.ca/mining/Geosurv/MapPlace/MoreDetails/geology.htm> What's Related

The MapPlace - BCGS Geology Map MapPlace Home

Details: This map has all the datasets and expanded geology layers. The Legend Window to the left of the map is organized into Layer Groups. Look for the expanded geology, mineral occurrence, ARIS and mineral title layers at the bottom of the legend window. Administrative layers are at the top. Topographic layers, including TRIM, are in the middle of the legend window. Two sets of Mineral Potential layers are available, a shaded version above the geology layers and a solid version below the geology layers. Map codes were recently rationalized and new updated sedimentary, volcanic, metamorphic, intrusive and ultramafic geology layers were added. Lithologies are displayed and reported by age and rock type. Geology is compiled at a 1:250K scale. Compilation scales may be shown with the legend label; scales in brackets, e.g. (<1:1.2M) or (<300K), are the scales, shown in the lower right part of the map, at which the layer is visible.

NEW The Bedrock Mapping Index (Date, Scale, Type) layer and report are directly linked to web publications, if available. Currently only 12 are available; others will be added as the list of publications is updated. The links may be HTML, PDF or DWF documents, in which case, the appropriate viewer is required. See [Geological Maps Online](#) for additional publication of DWF files.

NEW Mineral Titles download layer to link to 082F Mineral Titles map in PDF format (visible at 1:1.5M). Zoom to 1:1.5M scale, turn on the *Mineral Titles PDF 082F* layer in the *File Download Layers* group at top of the legend. Double click on the 1:20K map area and the PDF file will open in a new window. *Adobe Reader must be installed for this feature.*

A new *Mineral Titles Claim Name* layers, visible at 1:100K scale, is also available in the *Mineral Titles Layers* group.

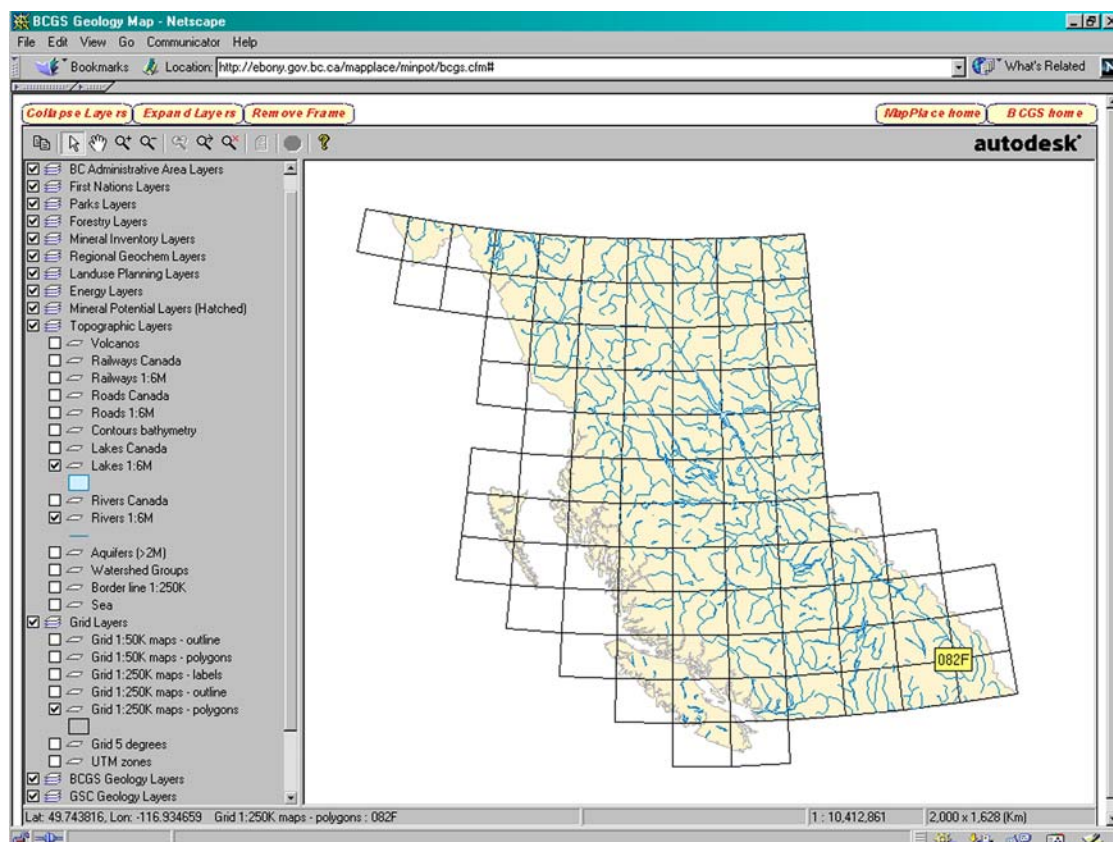
NEW Geothermal Hotspots, Boreholes, Rotary Boreholes and Potential layers under Energy Layer group.

NEW pH of Waters, F in Waters and U in Waters layers under the Regional Geochem Layers group.

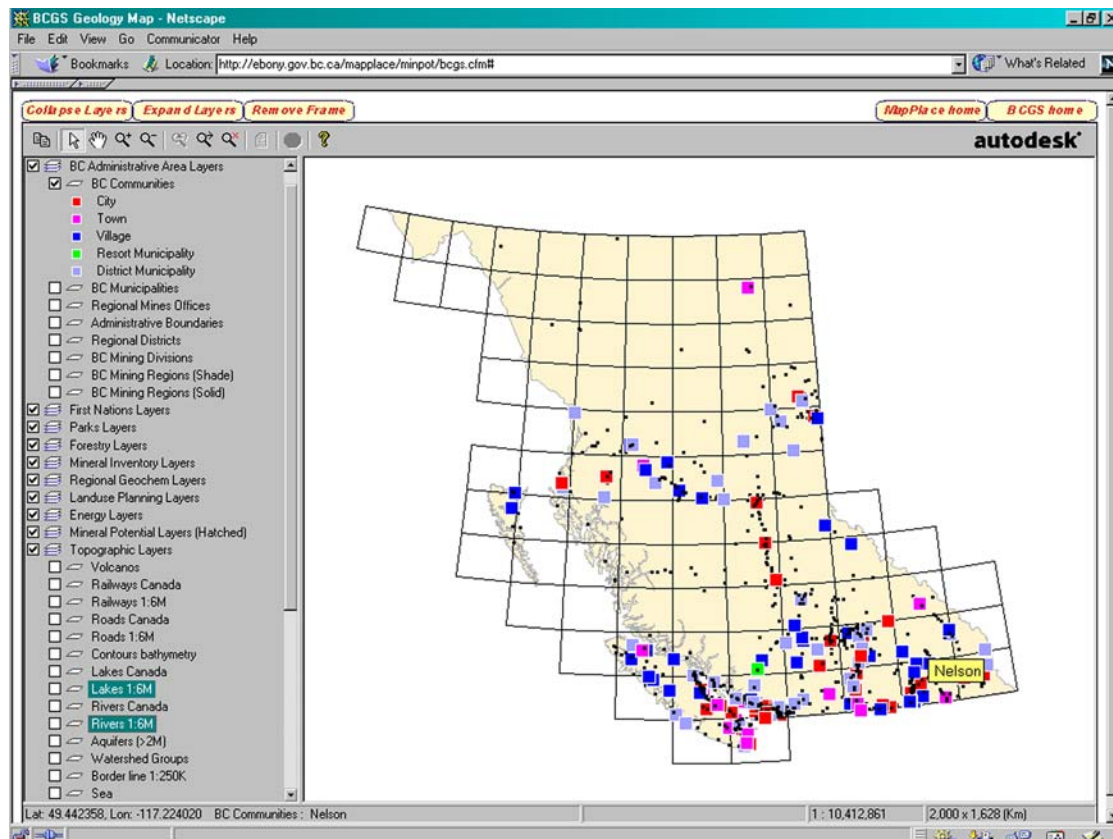
NEW Geologic Tectonic Assemblage layer under the BCGS Geology Layers group.

NEW Digital Orthophotos (85 images). These 1-metre pixel images are displayed in the UTM projected maps. To link to the 5 UTM zone maps, turn on the Orthophoto Coverage layer (at the top of the legend), double click on the area of interest and the appropriate Zone map will

2. More Details describes the map, including new features.

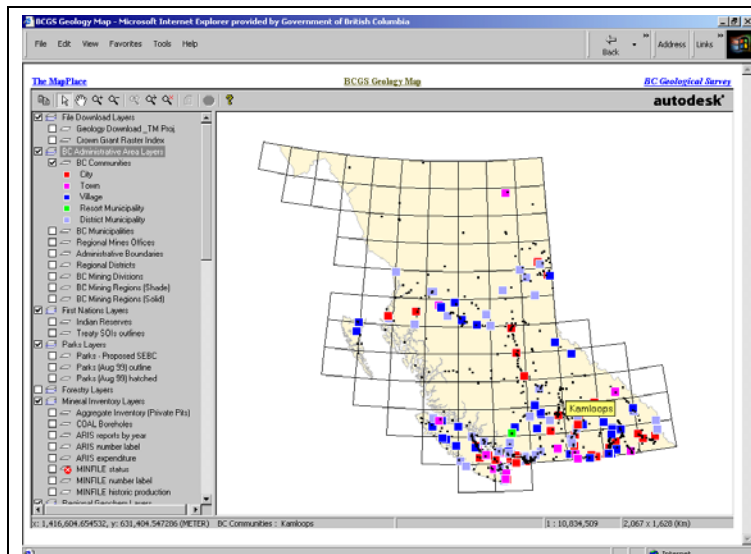


3. BCGS Geology Map. Topographic layers Lake 1:6M and Rivers 1:6M are turned on as well as the Grid layer GRID 1:250 maps and BC Border layer BC Border 1:6M.

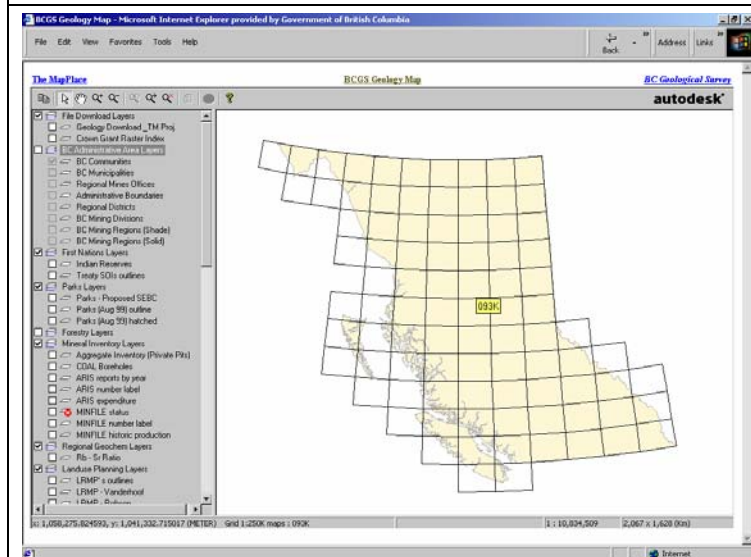


4. Lakes and Rivers layer are deselected and BC Communities layer is turned on.

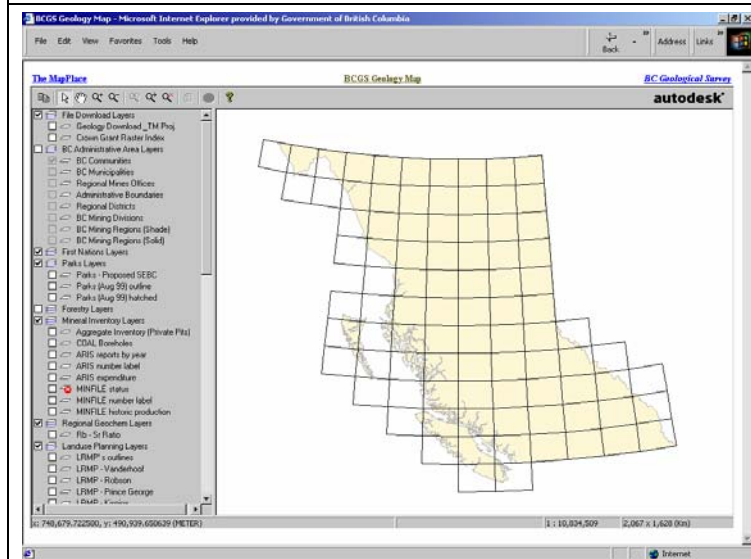
Exercise #5 - Layers, Groups, Toolbar & PopUp Menu



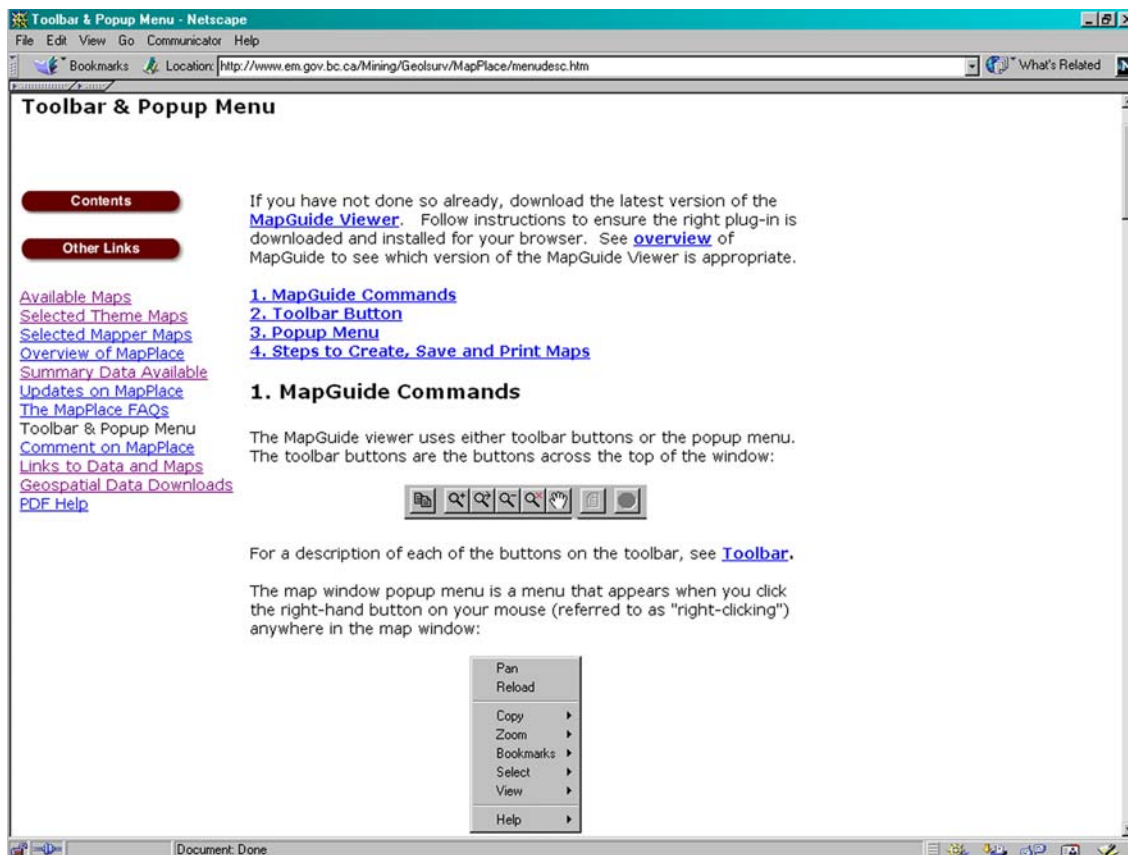
1. BCGS Geology Map with BC Communities layer turned on.



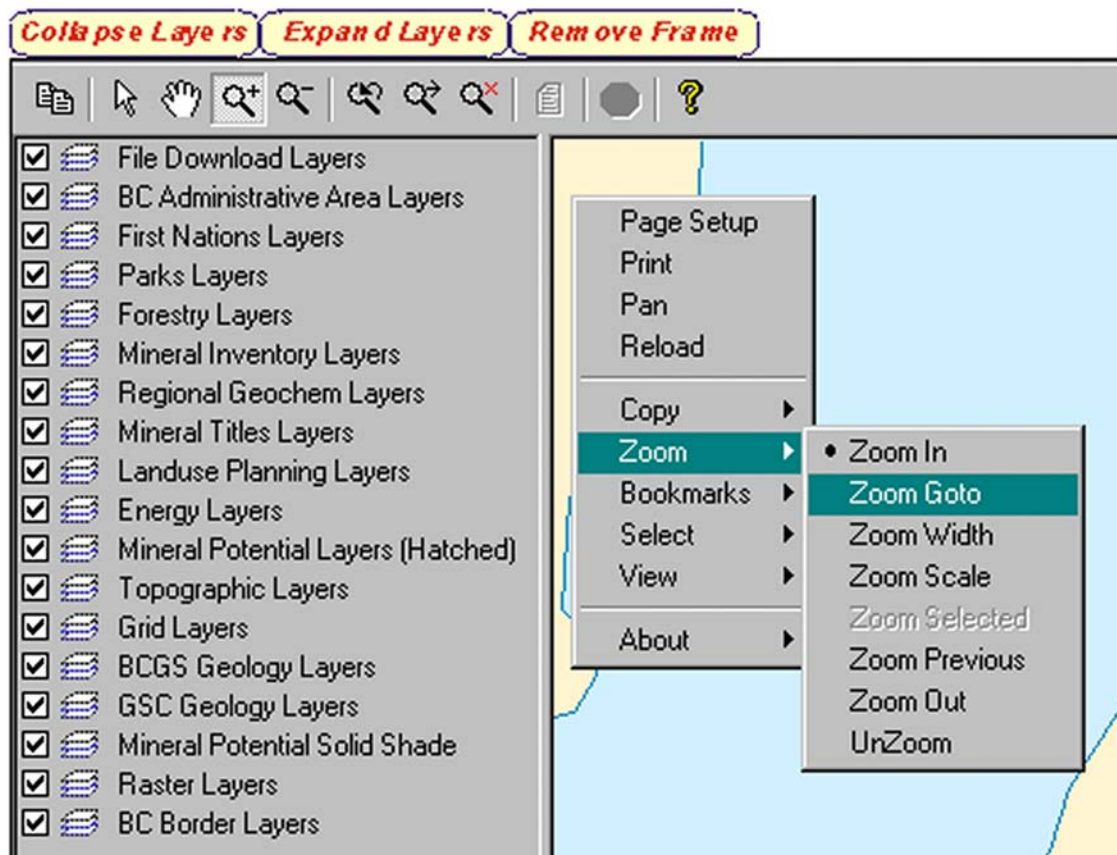
2. View of BCGS geology Map with 'BC Administrative layer' GROUP deselected.



3. View of BCGS Geology Maps with 'First Nations' and 'Forestry Layers' groups collapsed.



4. See Appendix 2 for details on Toolbar & PopUp Menu.



5. Collapsed layers show only Groups. Toolbar at top and right click on map for PopUp Menu.

Exercise #6 - Linked Reports & Downloads

Microsoft Excel - V01A92MN.exe

File Edit View Insert Format Tools Data Window Help

Arial 16 B I U

F77 =SUM(F2:F76)

	A	B	C	D	E	F	G
34	16157	1987	55.96139	-129.9169	\$3,520	\$3,385	
35	16526	1987	55.96639	-129.9003	\$4,009	\$3,855	
36	16622	1987	55.99778	-129.9103	\$12,940	\$12,442	
37	16633	1988	55.99889	-129.9311	\$33,000	\$30,387	
38	17606	1988	55.96639	-129.8853	\$6,512	\$5,996	
39	18912	1989	55.95806	-129.9186	\$36,656	\$32,905	
40	19166	1989	55.95806	-129.7353	\$4,523	\$4,060	
41	19168	1989	55.99972	-129.6686	\$34,976	\$31,397	
42	19398	1989	55.99972	-129.7519	\$9,800	\$8,797	
43	19445	1989	55.93306	-129.9686	\$7,900	\$7,092	
44	19724	1989	55.91639	-129.8853	\$4,200	\$3,770	
45	19728	1989	55.99139	-129.9853	\$3,000	\$2,693	
46	19988	1990	55.93306	-129.8853	\$11,704	\$9,794	
47	20001	1990	55.93306	-129.9686	\$1,600	\$1,339	
48	20133	1990	55.94972	-129.7019	\$981,466	\$821,311	
49	20683	1990	55.91639	-129.6686	\$2,277	\$1,905	
50	20811	1990	55.94972	-129.9353	\$2,858	\$2,391	
51	20971	1990	55.94972	-129.7019	\$2,309,610	\$1,932,728	
52	20991	1991	55.96639	-129.9853	\$26,473	\$20,977	
53	21101	1991	55.91639	-129.8853	\$3,278	\$2,597	
54	21381	1991	55.9275	-129.9672	\$1,438	\$1,139	
55	21941	1991	55.99972	-129.8158	\$3,284	\$2,602	
56	21943	1991	55.91639	-129.8436	\$2,016	\$1,597	
57	21966	1991	56.01639	-129.6686	\$4,300	\$3,407	
58	21972	1991	55.93306	-129.8686	\$4,000	\$3,170	
59	21975	1991	55.99972	-129.7686	\$29,608	\$23,461	
60	22053	1991	56.00806	-129.9186	\$451,507	\$357,771	
61	22401	1992	55.93306	-129.9353	\$1,200	\$941	
62	22417	1992	55.94972	-129.7019	\$728,243	\$571,171	
63	22440	1992	55.91639	-129.9519	\$18,958	\$14,869	
64	22538	1992	55.94972	-129.7019	\$32,400	\$25,412	
65	23345	1994	55.99972	-129.9686	\$750	\$573	
66	23402	1994	55.93306	-129.9353	\$1,400	\$1,069	
67	23463	1994	55.91639	-129.9519	\$5,057	\$3,860	
68	23853	1994	55.94972	-129.8519	\$7,538	\$5,754	
69	23855	1994	55.99972	-129.9186	\$2,455	\$1,874	
70	23903	1995	55.99139	-129.9853	\$15,898	\$11,953	
71	23983	1995	55.91639	-129.9186	\$2,777	\$2,088	
72	23996	1995	55.96639	-129.7353	\$318,214	\$239,259	
73	24713	1996	55.98306	-129.8686	\$46,000	\$33,824	
74	24889	1997	55.94972	-129.7019	\$17,600	\$12,754	
75	24947	1997	55.96639	-129.7019	\$6,350,522	\$4,801,828	
76							
77					\$11,926,972	\$9,412,074	
78							

V01A92MN

1. ARIS data in Excel format.

Mineral Titles Free Miner Detail - Netscape

File Edit View Go Communicator Help

Location: http://www.em.gov.bc.ca/cl/tenure/PubMiner.cfm?what=miner&client_no=100801

What's Related

Mineral Titles Free Miner Detail

The mineral tenure information at this site was last updated on the morning of **May 27, 2002**.

Free Miner Detail

Client Number **100801**
 Client Name **SULTAN MINERALS INC.**
 Address 1 **1400-570 GRANVILLE ST**
 Address 2
 Address 3
 City **VANCOUVER**
 Province **BC**
 Country **CAN**
 Postal Code **V6C3P1**
 Business Phone **6046874622**
 FMC Expiry Date **20021109**

Document: Done

2. Mineral Titles report.

Microsoft Excel - geochemdump.cfm

File Edit View Insert Format Tools Data Window Help Acrobat

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3. RGS data download.

Search MINFILE Database - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://www.em.gov.bc.ca/cl/minfile/search/search.cfm?mode=capbib&minfile=082FSW168> What's Related

Capsule Geology and Bibliography

Printable Report

082FSW168 [Production Report](#) [Inventory Report](#)

Name	ATHABASCA (L.1569)	Mining Division	Nelson
Status	Past Producer	NTS	082F06W NAD 27
Latitude	49 27 29 N	UTM	11 5478200 477412
Longitude	117 18 42 W		
Commodities	Gold Silver Lead Zinc Copper Tungsten	Deposit Types	I01 : Au-quartz veins. I05 : Polymetallic veins Ag-Pb-Zn±Au. I12 : W veins. I02 : Intrusion-related Au pyrrhotite veins.
Tectonic Belt	Omineca	Terranes	Quesnel. Plutonic Rocks.

Capsule Geology

The Athabasca vein is located on the slopes of Toad Mountain 3 kilometres southwest of Nelson. The vein was initially discovered in 1896.

The area is underlain by schistose augite basalt flows and flow breccias of the Lower Jurassic Elise Formation (unit Je4) of the Rossland Group, these are in contact with a granodiorite stock of the Middle to Late Jurassic Nelson Intrusions and have been intruded by feldspar porphyry of the Jurassic Silver King Intrusions.

The Athabasca vein strikes at 045 degrees with a 30 to 50 degree northwest dip. The vein is hosted within granodiorite and tends to flatten as it traverses the schistose volcanics to the south. The vein comprises quartz gangue mineralized with pyrite, some galena, sphalerite and free gold. The gold occurs as 80 per cent free gold and 20 per cent is associated with sphalerite. The vein is a few centimetres to about 1.5 metres wide, averaging about 0.3 metres.

4. MINFILE Reports.

Geology Legend

MIDDLE JURASSIC

MJB BONNINGTON PLUTON granodioritic intrusive rocks

MJgr granite, alkali feldspar granite intrusive rocks

NELSON BATHOLITH

MJNgd granodioritic intrusive rocks

EARLY JURASSIC

EAGLE CREEK PLUTONIC COMPLEX

EJE dioritic to gabbroic intrusive rocks

EJS SILVER KING INTRUSIONS feldspar porphyritic intrusive rocks

LOWER JURASSIC

ROSSLAND GROUP

DRA ARCHIBALD FORMATION mudstone, siltstone, shale fine clastic sedimentary rocks

DRE ELISE FORMATION basaltic volcanic rocks

DRH HALL FORMATION mudstone, siltstone, shale fine clastic sedimentary rocks

TRIASSIC TO JURASSIC

YMIR GROUP

TrJY limestone, slate, siltstone, argillite

UPPER MISSISSIPPIAN TO PERMIAN

uMPM MILFORD FORMATION limestone, slate, siltstone, argillite

ORDOVICIAN

OA ACTIVE FORMATION mudstone, siltstone, shale fine clastic sedimentary rocks

CAMBRIAN TO DEVONIAN

LARDEAU GROUP

CmDLI INDEX FORMATION mudstone, siltstone, shale fine clastic sedimentary rocks

Source: Open File 1994-8 Geology of the Kootenay River Map-Area

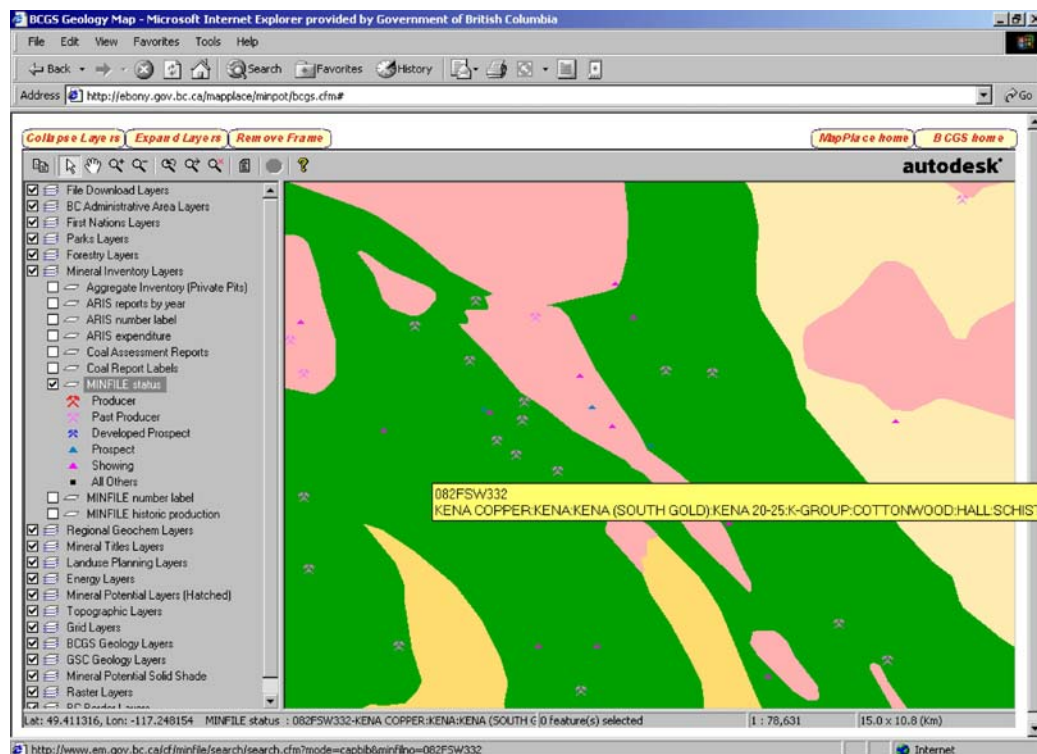
Author(s): T. Hoy, A. Legun, B.N. Church, G. Gibson, K. Glover and J.O. Wheeler

This Database Last Updated: January 1998.

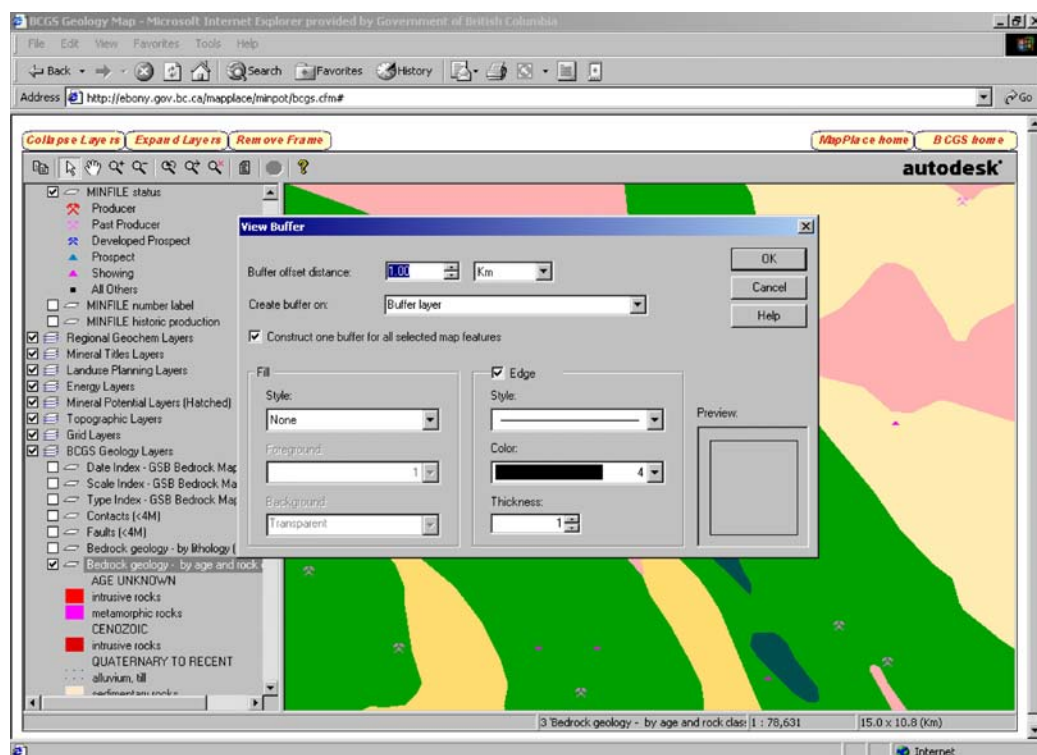
British Columbia Ministry of Energy and Mines
Geological Survey Branch

5. Geology Legend Reports

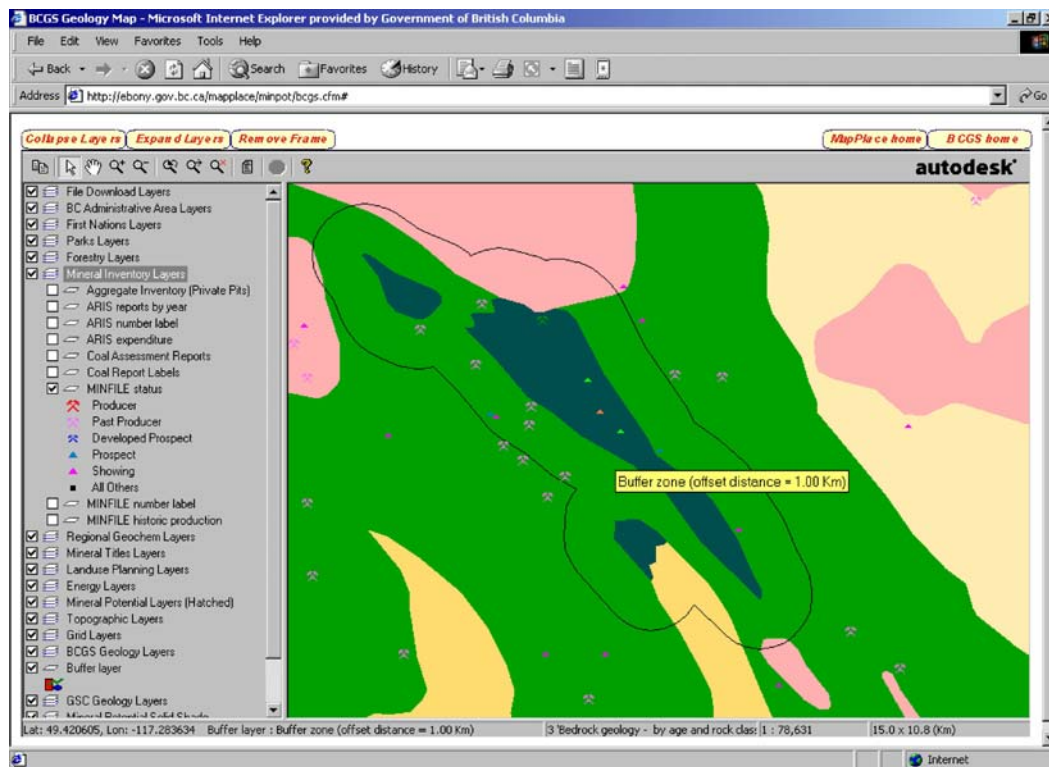
Exercise #7 - Buffers



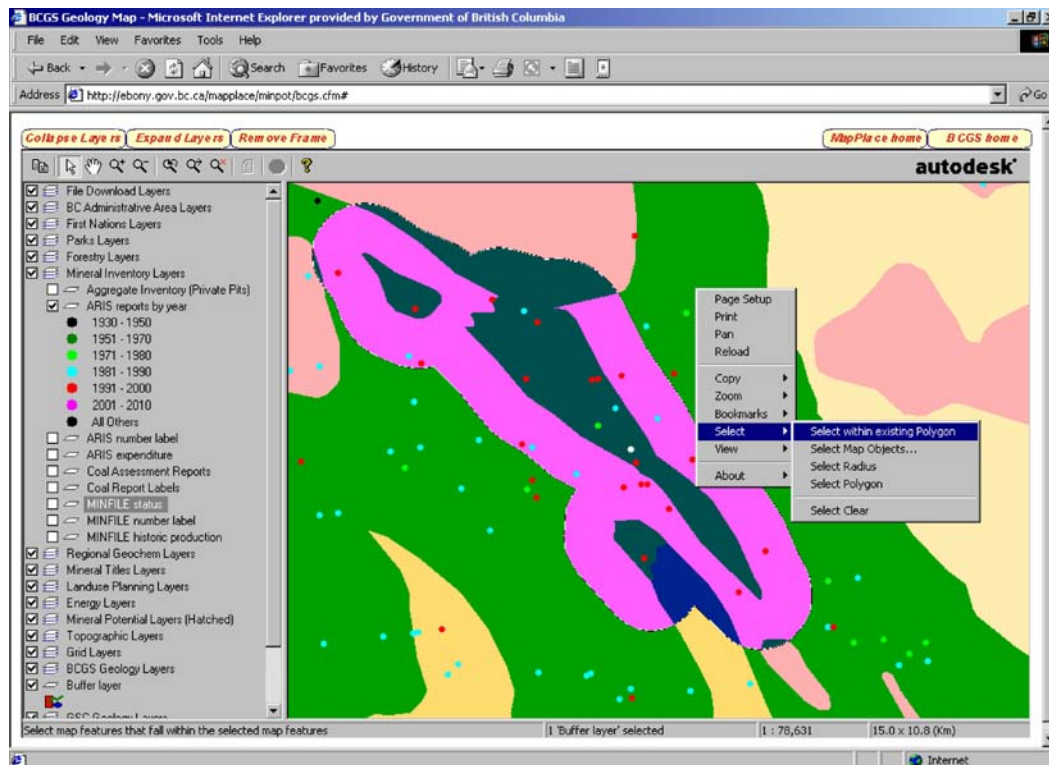
1. Geology and MINFILE occurrences within 15 km of the Kena Gold showing south of Nelson BC.



2. Select the features to be buffered. To select multiple features hold down the shift key while selecting then right click the mouse within the map window and select View->Buffers from the popup menu. On the View Buffer screen enter the buffer distance. You can also change the buffer display properties and layer name. Click on OK to continue.



3. Buffer created at a distance of 1 kilometre around three selected plutons (dark shading) in the vicinity of the Kena prospect.



4. Turn on the ARIS reports by year layer, select the buffer by clicking within the buffer polygon, right click within the map window and choose Select within existing polygon from the pop-up menu. This buffering procedure can be used to find map features within a certain distance of one or more selected map objects (polygons, points, lines).

Assessment Report Linked List - Microsoft Internet Explorer provided by Government of British Columbia

Address: http://ebony.gov.bc.ca/mapplace/minpot/aris_link_list.cfm

Assessment Report Linked List

Click on Assessment Report Number link for more details!

Assessment Report Number	Year Report Submitted	Work Amounting To	In 1986 \$
00008	1947	\$600.00	\$3,821.66
02598	1970	\$2,200.00	\$7,096.77
03303	1971	\$704.00	\$2,206.90
03304	1971	\$2,946.00	\$9,235.11
03719	1971	\$1,800.00	\$5,642.63
04701	1973	\$6,500.00	\$18,055.56
05074	1974	\$12,400.00	\$31,077.69
05222	1974	\$3,400.00	\$8,521.30
05665	1975	\$9,100.00	\$20,588.24
05721	1975	\$1,200.00	\$2,714.93
06139	1976	\$1,100.00	\$2,315.79
06379	1977	\$9,300.00	\$18,128.65
06476	1977	\$9,700.00	\$18,908.38
06520	1977	\$6,400.00	\$12,475.63
06946	1978	\$1,365.95	\$2,443.56
07377	1978	\$903.07	\$1,615.51
07393	1979	\$4,636.83	\$7,601.36
08614	1980	\$24,442.00	\$36,372.02
09461	1981	\$28,073.00	\$37,182.78
09476	1981	\$43,616.00	\$57,769.54
09593	1981	\$50,016.00	\$66,246.36
10605	1982	\$2,477.00	\$2,959.38
11027	1982	\$8,997.00	\$10,749.10
11720	1983	\$36,219.00	\$40,925.42
11782	1983	\$5,264.00	\$5,948.02
11883	1983	\$5,820.00	\$6,576.27

5. Select the report button and ARIS linked report from the list of reports available. This opens a window with a list of Assessment Reports occurring within the buffer.

MINFILE Report - Netscape

Location: <http://ebony.gov.bc.ca/mapplace/minpot/minfile.cfm>

MINFILE Report

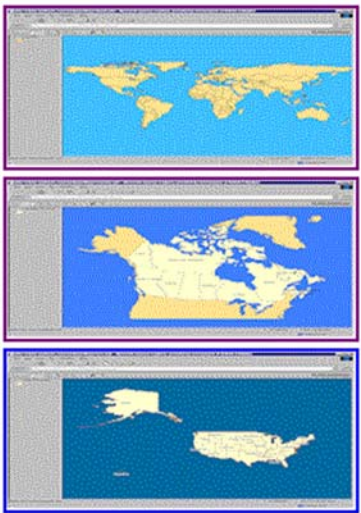
Click on MINFILE Number link for more details!
Click on Commodities or Deposit Type label for definitions

MINFILE No.	Name	Status	Commodities	Deposit Type	Latitude	Longitude
082FSW166	VENUS (L.4293):JUNO (L.3161)	Past Producer	AU AG PB CU ZN	I05	49 27 17	117 19 50
082FSW168	ATHABASCA (L.1569):MANITOBA (L.1572):ALBERTA (L.1571):ALGOMA (L.1570)	Past Producer	AU AG PB ZN CU WO	I01:I05:I12:I02	49 27 29	117 18 46
082FSW169	CALIFORNIA (L.1677):DEADWOOD (L.2232):UNION (L.8324):CABIN:EXCHEQUER (L.391):CREEK:HILLSIDE (L.2238):CLIFF FR. (L.15029):CLEOPATRA (L.387):CAL 3-6:CAL 8	Past Producer	AU AG PB ZN CU	I05:I01	49 27 13	117 17 47
082FSW170	SHAMROCK (L.2234)	Past Producer	AG PB ZN AU	I05	49 26 50	117 18 59
082FSW171	IRENE (L.4151):GREAT WESTERN:ABERDEEN	Past Producer	AU AG	I05	49 26 18	117 18 09
082FSW172	GREAT EASTERN (L.4152):GREAT WESTERN:ABERDEEN	Past Producer	AU AG	I05	49 26 06	117 18 13
082FSW174	STARLIGHT (L.684):GREAT WESTERN GROUP	Past Producer	AU AG CU	I05	49 25 55	117 18 41
082FSW175	DAYLIGHT-BERLIN:DAYLIGHT (L.907):BERLIN (L.3251)	Past Producer	AU AG PB ZN CU		49 25 30	117 17 44
082FSW379	KENA (GOLD MOUNTAIN):GOLD MOUNTAIN:KENA	Prospect	AU CU MO	L03	49 26 09	117 17 01
082FSW237	KENA GOLD:KENA (MAIN):KENA (NEIL):KENA 7:COTTONWOOD:MAC 1:GOLD MTN 3	Prospect	AU CU PB ZN	L03:I05	49 25 39	117 16 07
082FSW276	NORTH STAR (L.4149):NORTHSTAR:GREAT WESTERN GROUP	Showing	AU	I01:I05	49 26 14	117 18 45
082FSW309	STAR OF THE WEST (L.1311):NEW BICYCLE:TEE:MAS:COT:STAR OF THE EAST (L.1312)	Showing	AG PB ZN AU	I05	49 26 31	117 17 09
082FSW331	SHAFT:CAT:KENA:MAGPIE:ELDORADO:DOLLY	Showing	AU CU	L03	49 25 55	117 16 43
082FSW332	KENA COPPER:KENA:KENA (SOUTH GOLD):KENA 20-25:K-GROUP:COTTONWOOD:HALL:SCHIST	Showing	CU AU	L03	49 24 41	117 14 57
082FSW333	GREAT WESTERN:GREAT WESTERN GROUP:WHITE WITCH (L.3595):THISTLE (L.2233):GREAT WESTERN (L.4148):ABERDEEN:GIVEOUT CREEK:BLACK WITCH	Prospect	AU CU	L03	49 26 17	117 18 51

British Columbia Ministry of Energy and Mines
Geological Survey Branch

6. A similar report can be created for MINFILE occurrences.

Exercise #8 - Zoom & Copy

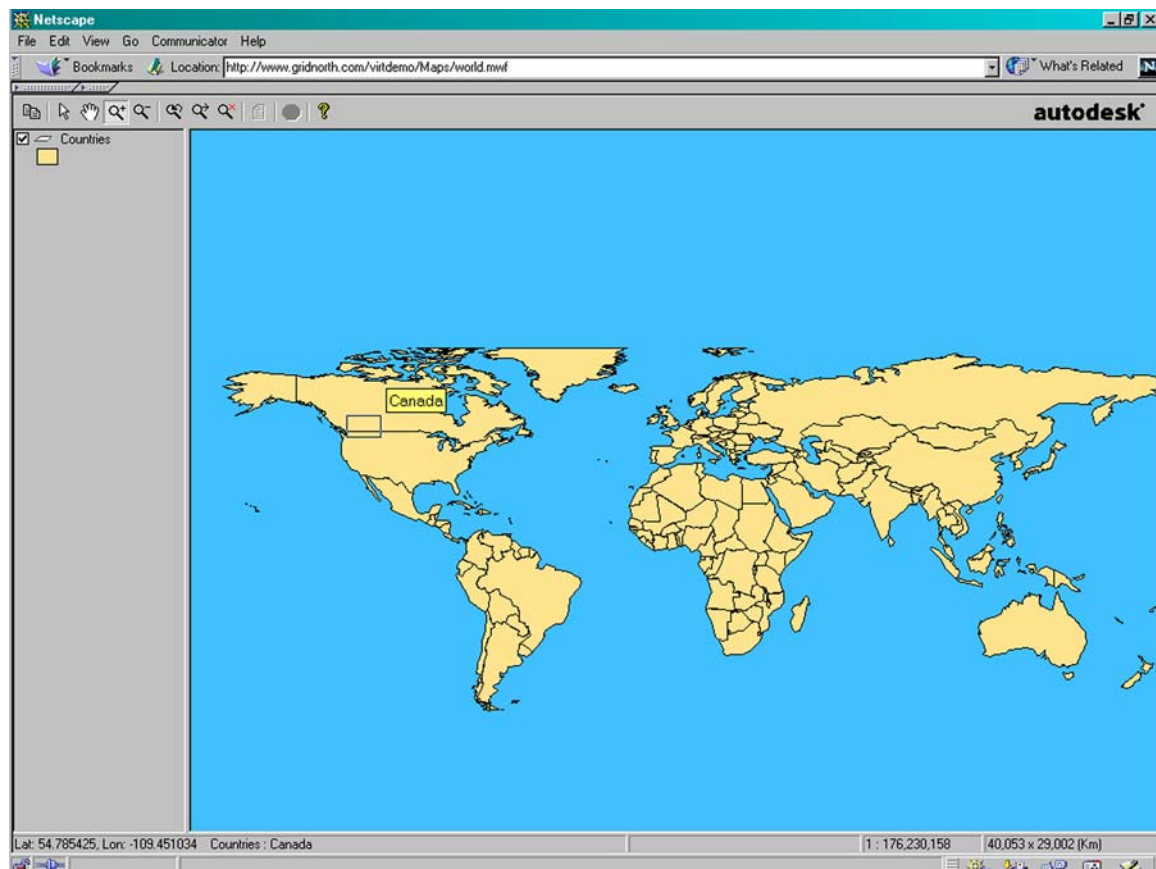


Virtual World Maps

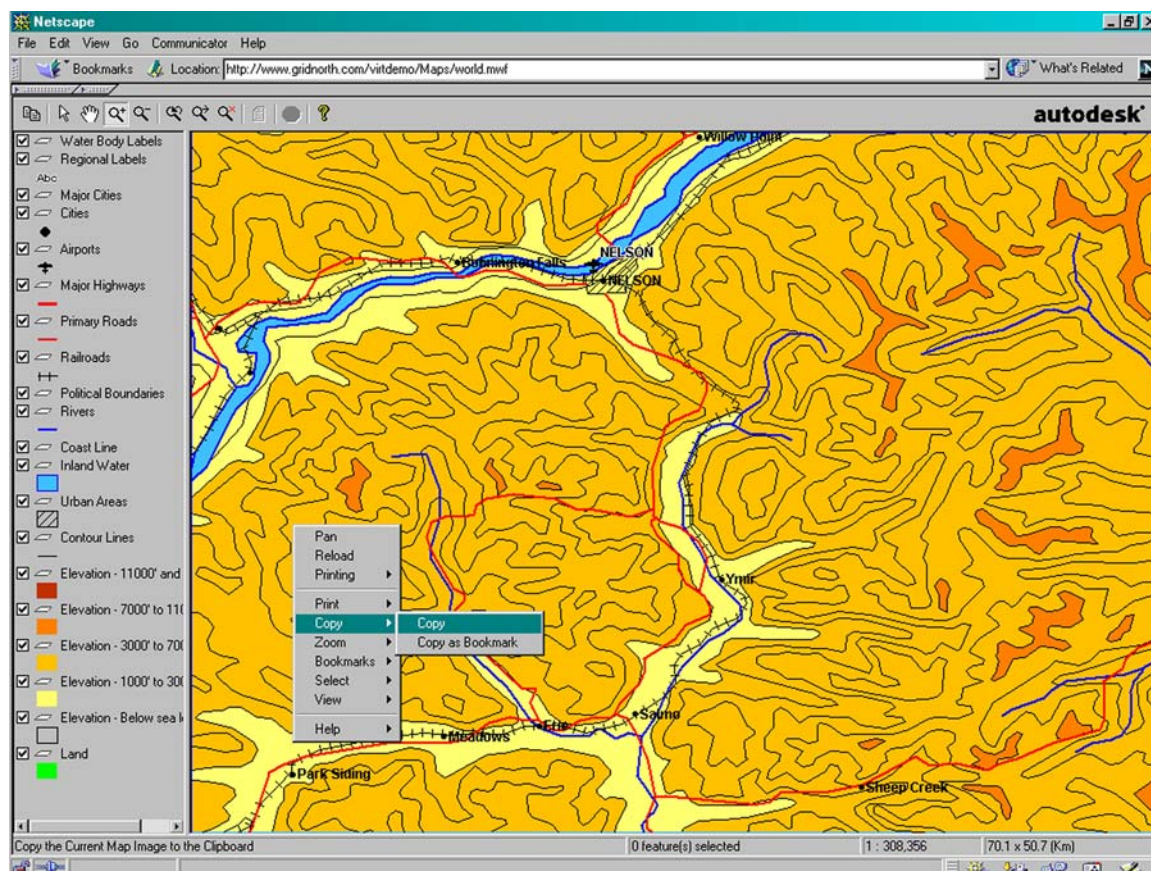
- **World** Map Data of the entire world. Zoom to Places or Airports anywhere in the world.
- **Canada** Map Data of Canada. View street networks of urban areas. Zoom to Places or Airports anywhere in Canada.
- **USA** Map Data of the USA with Demographics. Zoom to Geocoded Street Addresses, Places, Zipcodes or Airports anywhere in the USA. View street networks of the entire country. Generate demographic reports on selected areas.

Links to other data sources and information

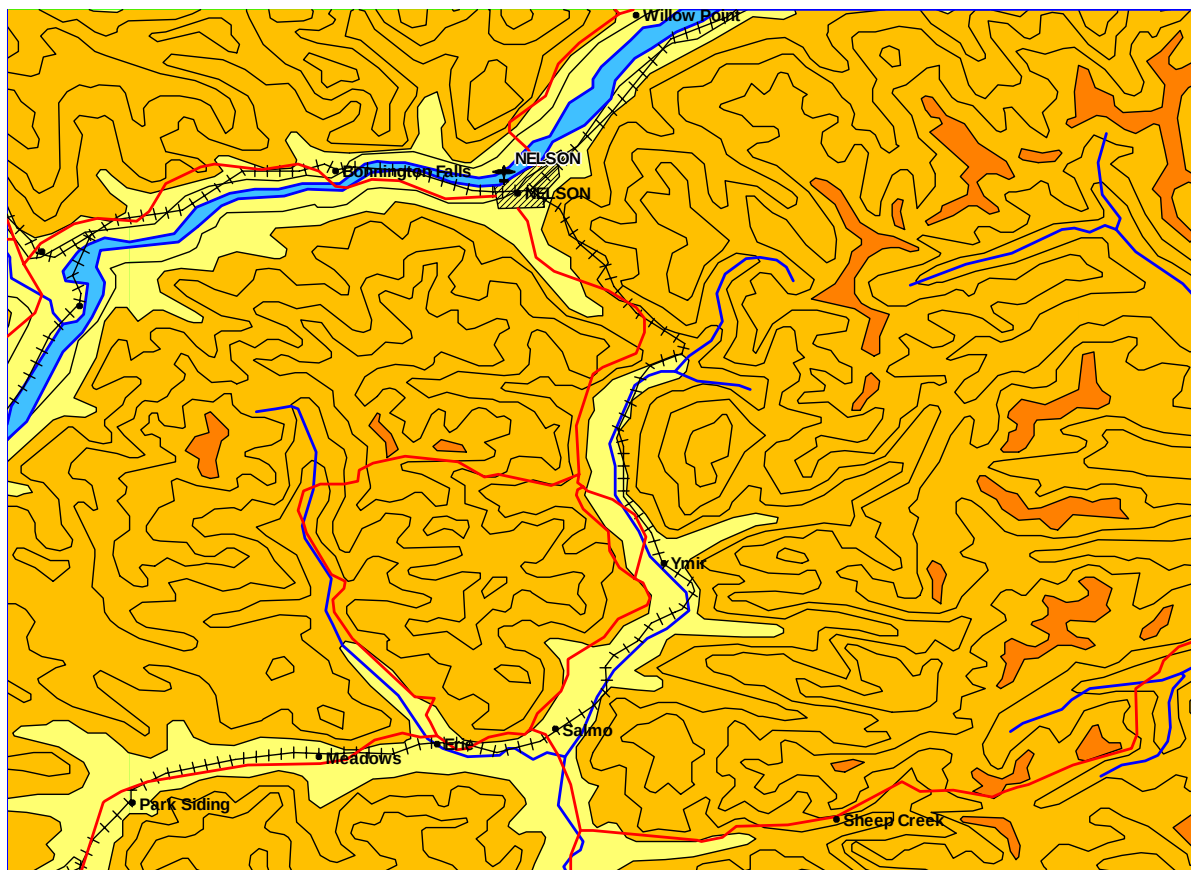
1. Open the world map by clicking on the 'World' map.



2. Zoom to show the Nelson area.

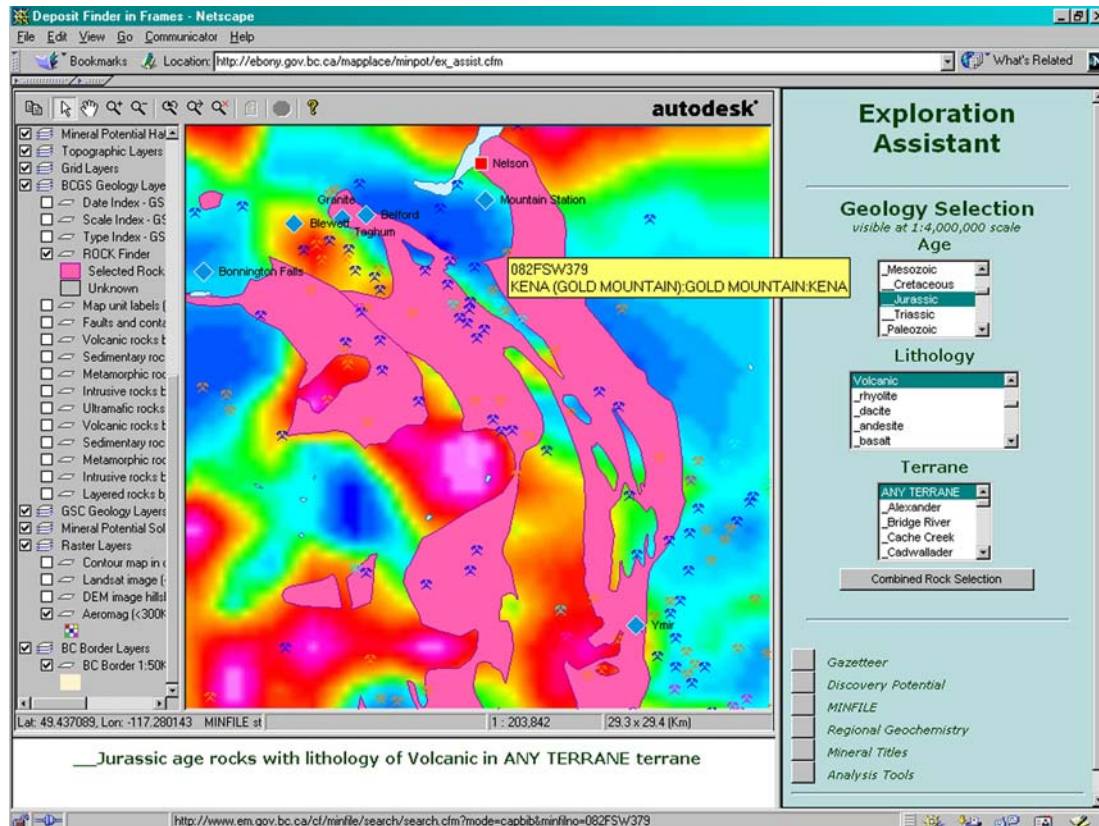


3. Note the layers that are available now. Use the copy tool to copy the map into the clipboard.

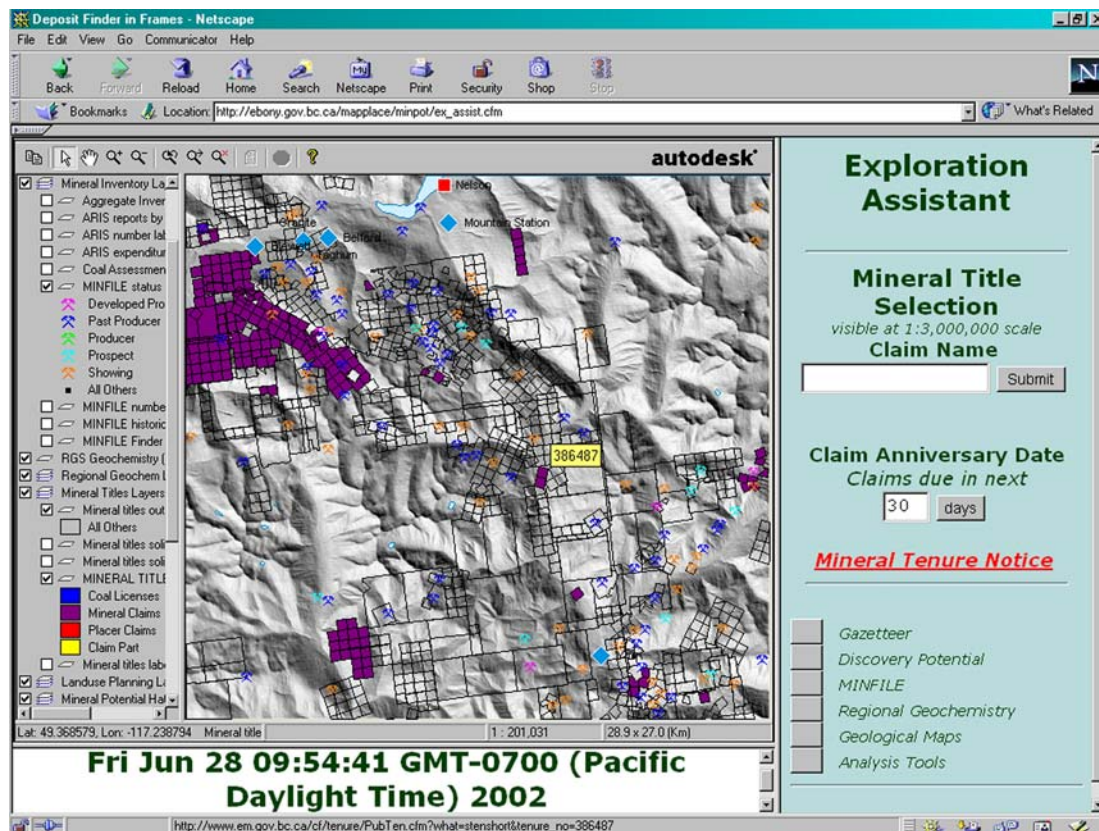


4. Result of copy using toolbar button and paste into Microsoft word.

Exercise #9 - Exploration Assistant

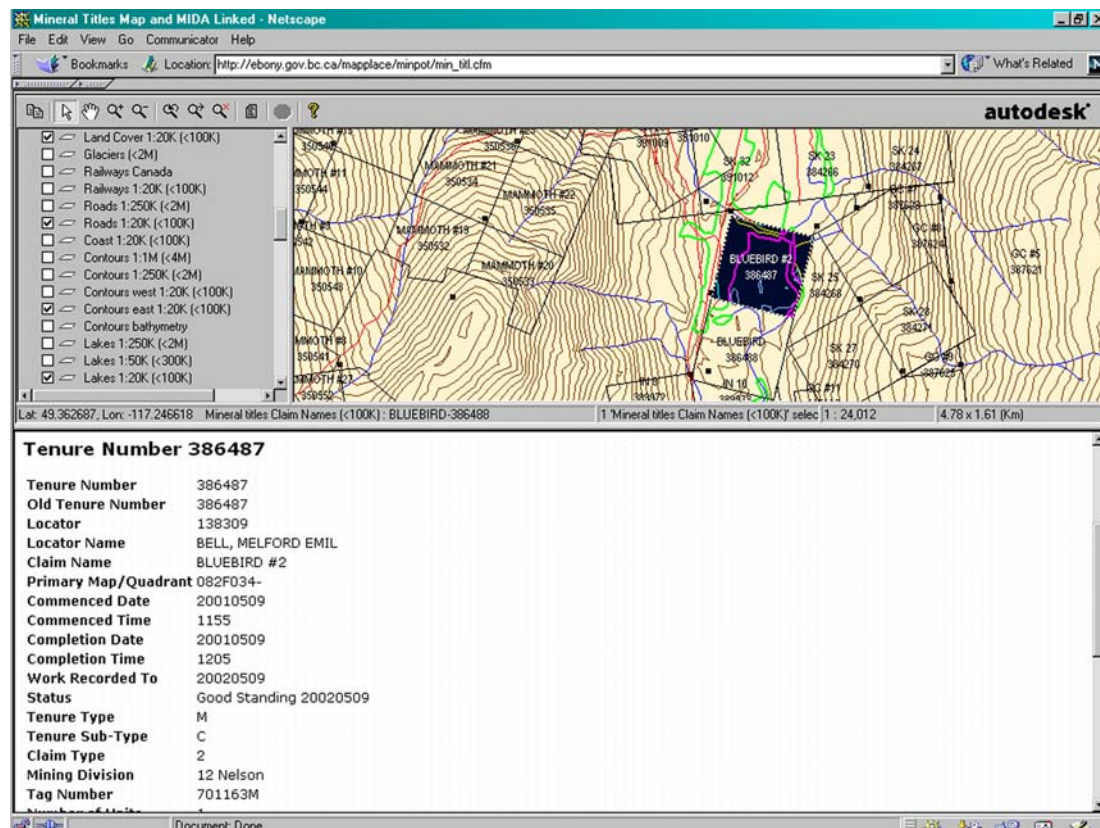


1. Geology Query in Kena area.

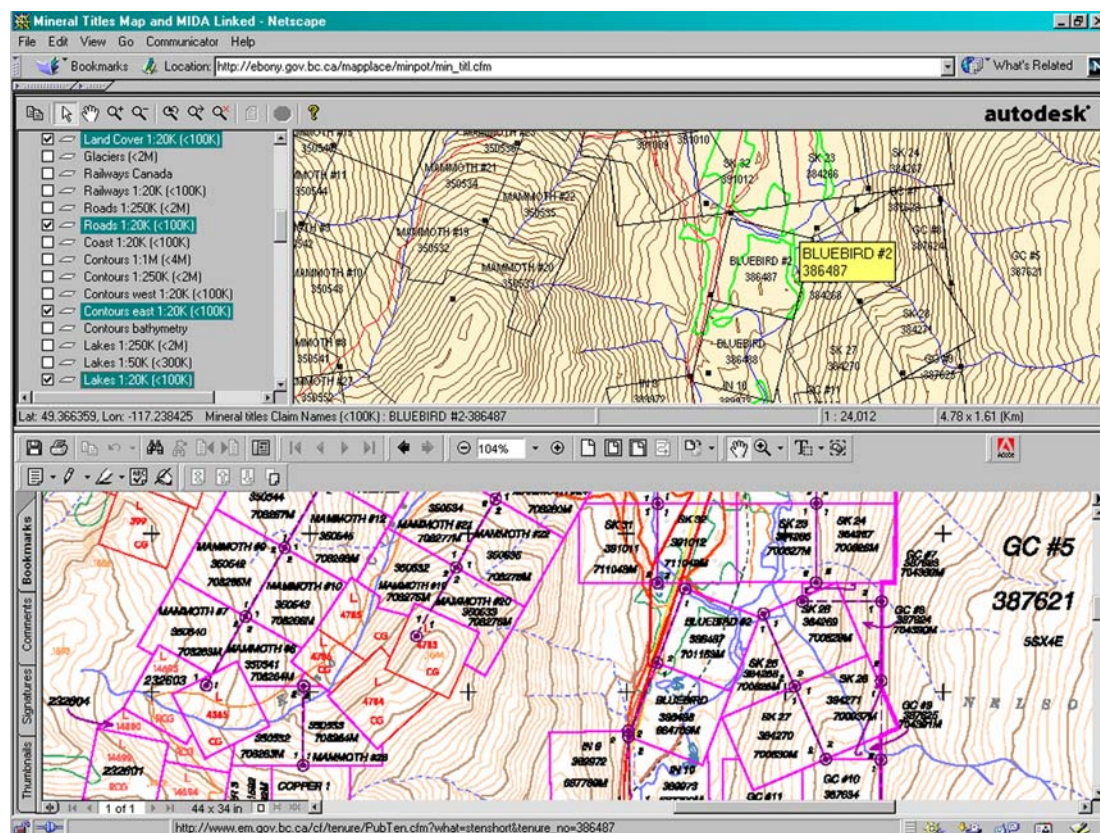


2. Query on Mineral Claims with due date in next 30 days. DEM Hillshade backdrop.

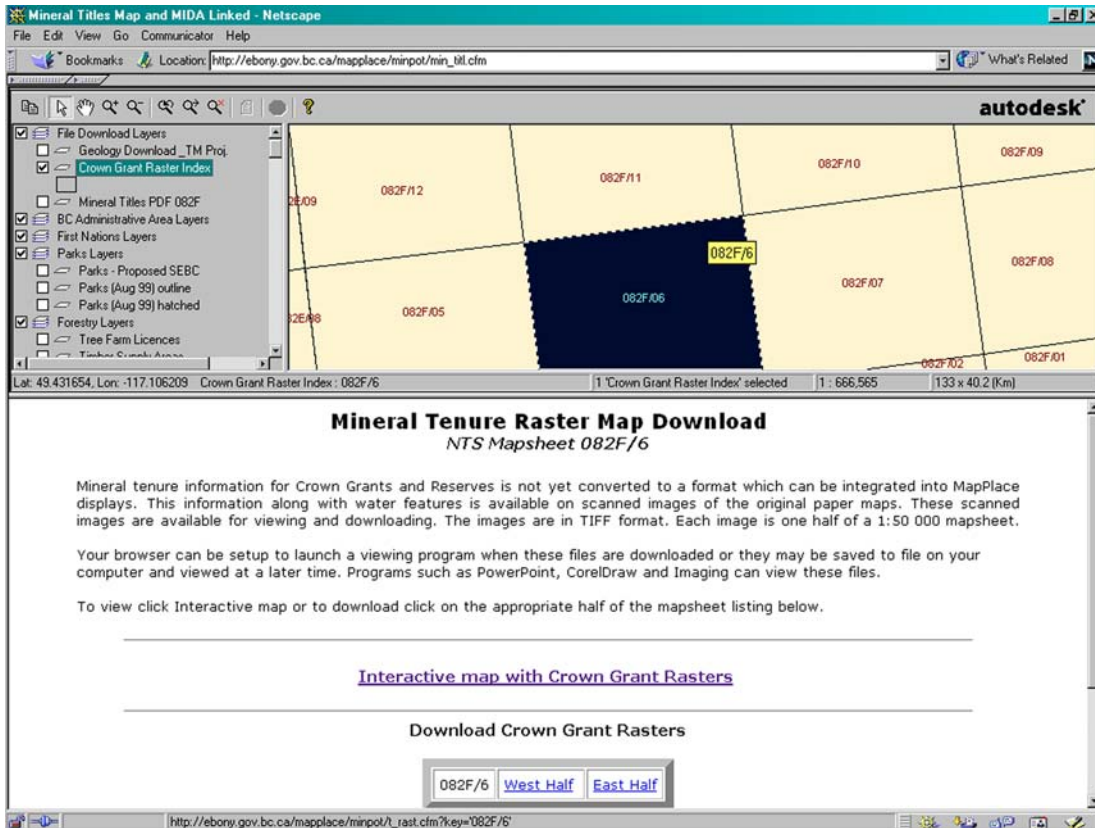
Exercise #10 - Mineral Titles Map



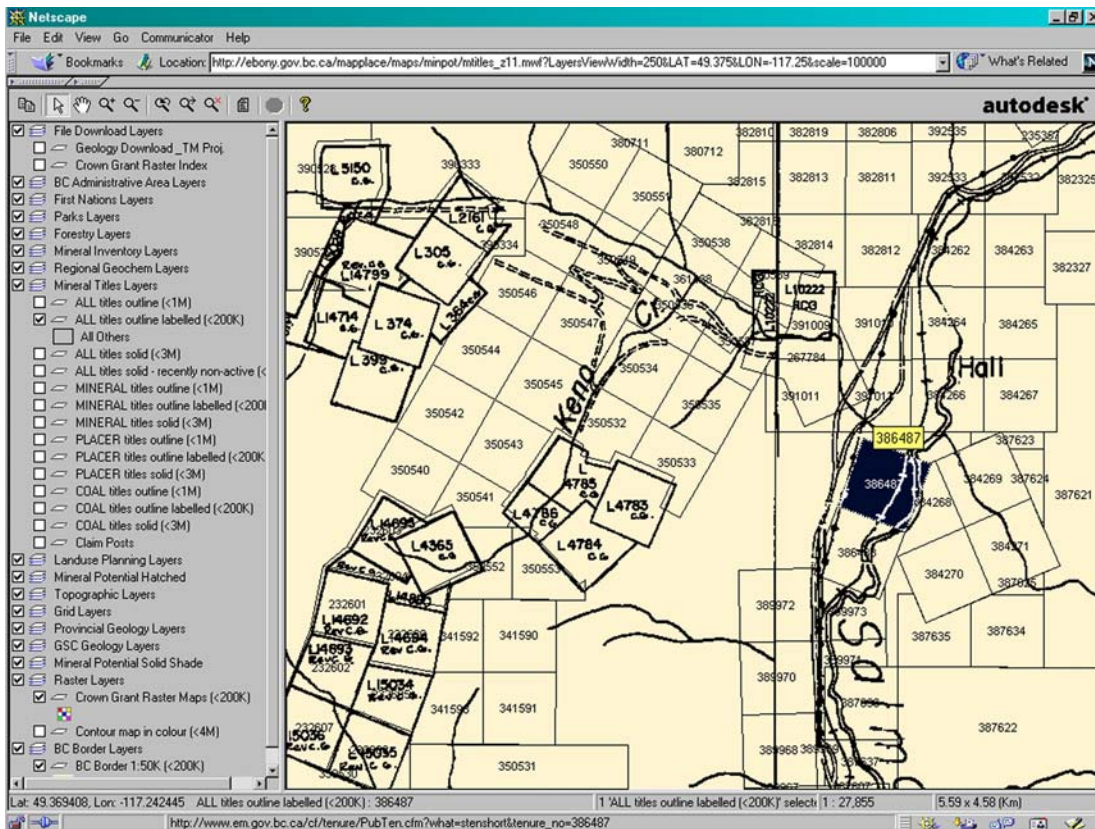
1. Mineral Titles map and report.



Exercise #10a - Crown Grant Raster Maps



1. Double click on Crown Grant Raster Index layer to link to Raster maps in UTM projection.



2. Crown Grant Raster layer and Mineral Title vector layer.

Exercise #11 - Using ArcExplorer & Geospatial Download Data from MapPlace

Geospatial Data Downloads

The table below lists the files available for downloading. File formats are zipped ARC Shapefiles in NAD 83 and either BC Albers or Geographic (decimal degrees) projection. Some files are in dBASE format. These files can be used with most GIS systems or the free [ArcExplorer](#). See [Notes & Links](#).

Date	Data (with Home Page links & more downloads)	ARC Shapefiles BC Albers (size zip, shp MB)	ARC Shapefiles Geographic (size zip, shp MB)
Dec. 2001	Bedrock Geology --- ArcView Data Files in .E00 format	bedrock_bc_alb.zip (32, 150) faults_bc_alb.zip (4, 30)	bedrock_bc_dd.zip (26, 150) faults_bc_dd.zip (3, 38)
1998	Tectonic Assemblage Geology Tectonic Belts & Terranes	tectassem_bc_alb.zip (14, 18) tectbelt_bc_alb.zip geoterranes_bc_alb.zip	tectassem_bc_dd.zip (16, 18) tectbelt_bc_dd.zip geoterranes_bc_dd.zip
1998	BCOS Geology Map Index		gibindex_dbf.zip
1998	Mineral Potential polygons	minpot_bc_alb.zip (8, 9)	minpot_bc_dd.zip (8, 9)
Dec. 2001	Mineral Occurrences - MINFILE --- more downloads	minfile_bc_alb.zip (1, 17)	minfile_bc_dd.zip (1, 17) minfile_dbf.zip (1, 9)
Dec. 2001	Assessment Report Index - ARIS --- more downloads	aris_bc_alb.zip (1, 0)	aris_bc_dd.zip (1, 0)

1. Geospatial data download page showing files available for download and use in ArcExplorer and other GIS mapping systems. This page also has a link to the ESRI ArcExplorer home page.

ArcExplorer

Technical Information
[Discussion Forums](#)

Data
[ArcData Online](#)
View and download data for ArcExplorer

[To Request More Info](#)

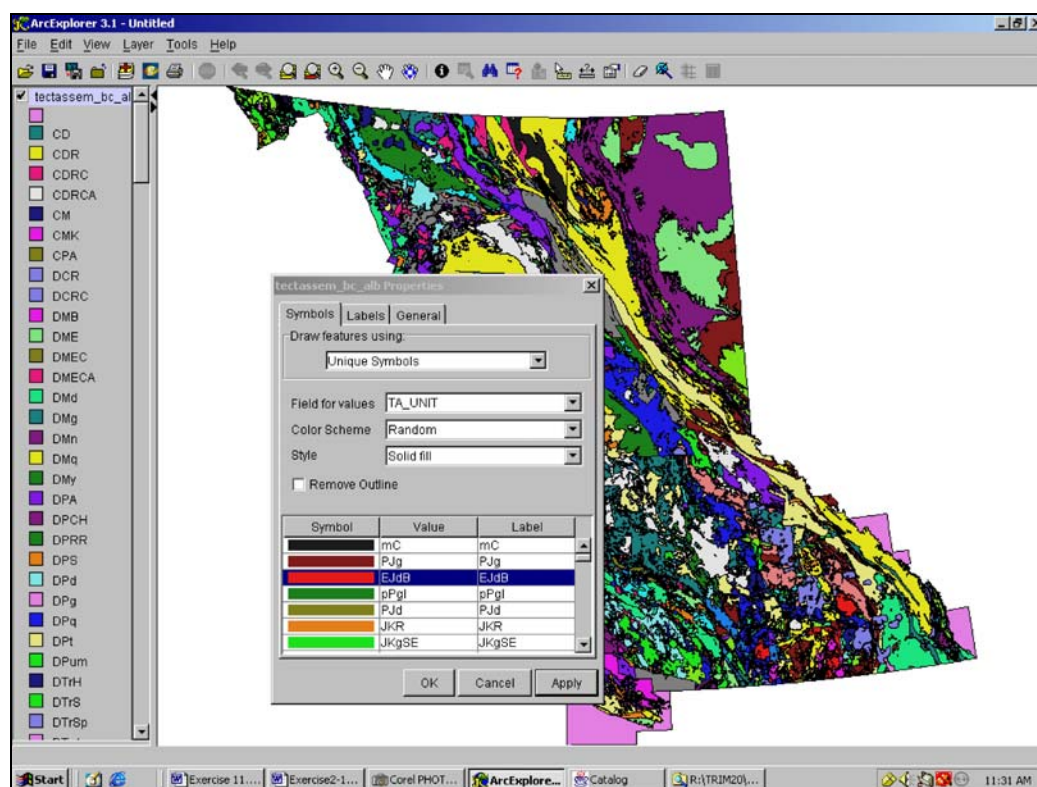
What's New

- [Download](#)
- [Overview of ArcExplorer 2 \(Windows Edition\)](#)
- [Overview of ArcExplorer 4 \(Java Edition\)](#)
- [FAQ](#)

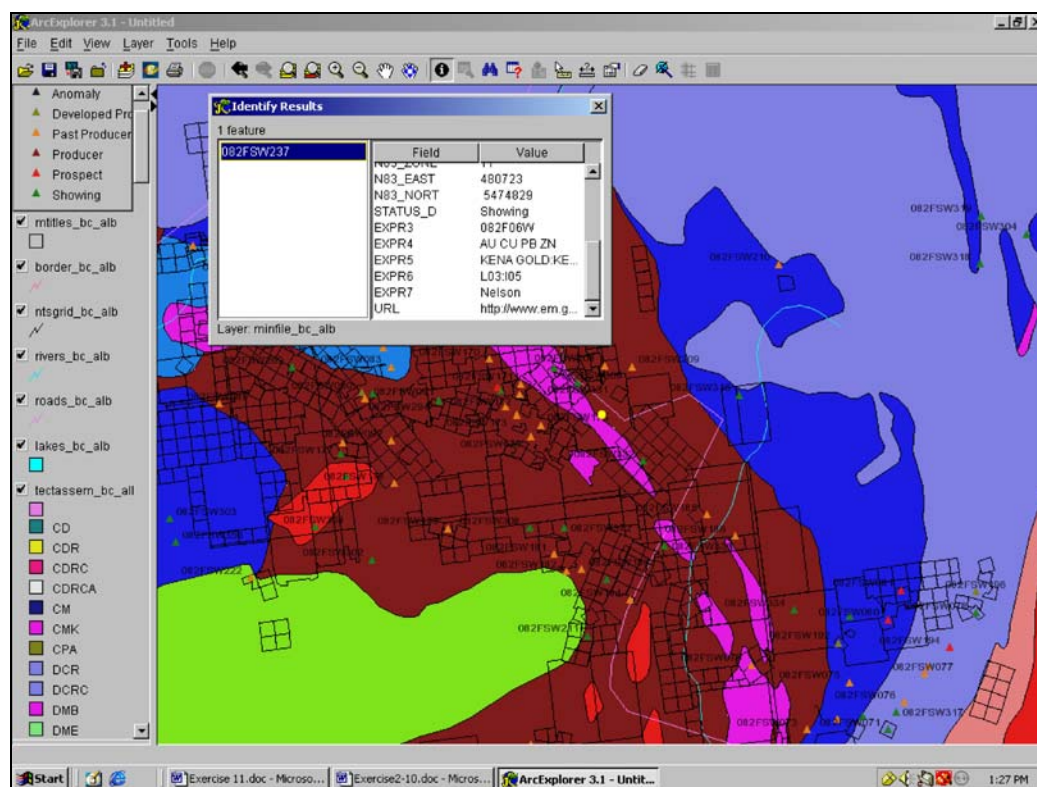
ArcExplorer is a lightweight GIS data viewer developed by ESRI. This freely available software offers an easy way to perform basic GIS functions. ArcExplorer is used for a variety of display, query, and data retrieval applications and supports a wide variety of standard data sources. It can be used on its own with local data sets or as a client to Internet data and map servers.

Among its many uses, ArcExplorer is an excellent vehicle for publishing your data. You can distribute the ArcExplorer setup and your data on CDs. Users can then use the CD to install ArcExplorer on their machines and view your data easily and effectively. And best of all, ESRI doesn't charge you for this software.

2. ESRI ArcExplorer home page (<http://www.esri.com/software/arcexplorer/index.html>)

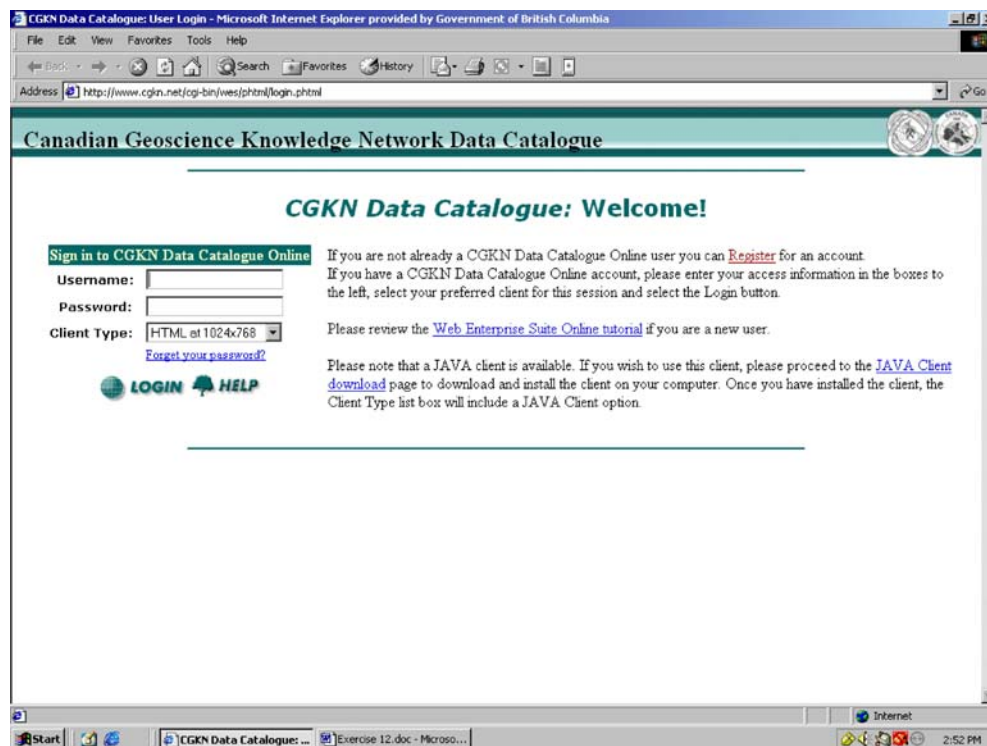


3. ArcExplorer map window showing tectonic assemblage geology for BC and layer properties popup window used to assign theme properties such as colour fill, line types and symbols. To open this window double click on the layer name in the left hand frame.

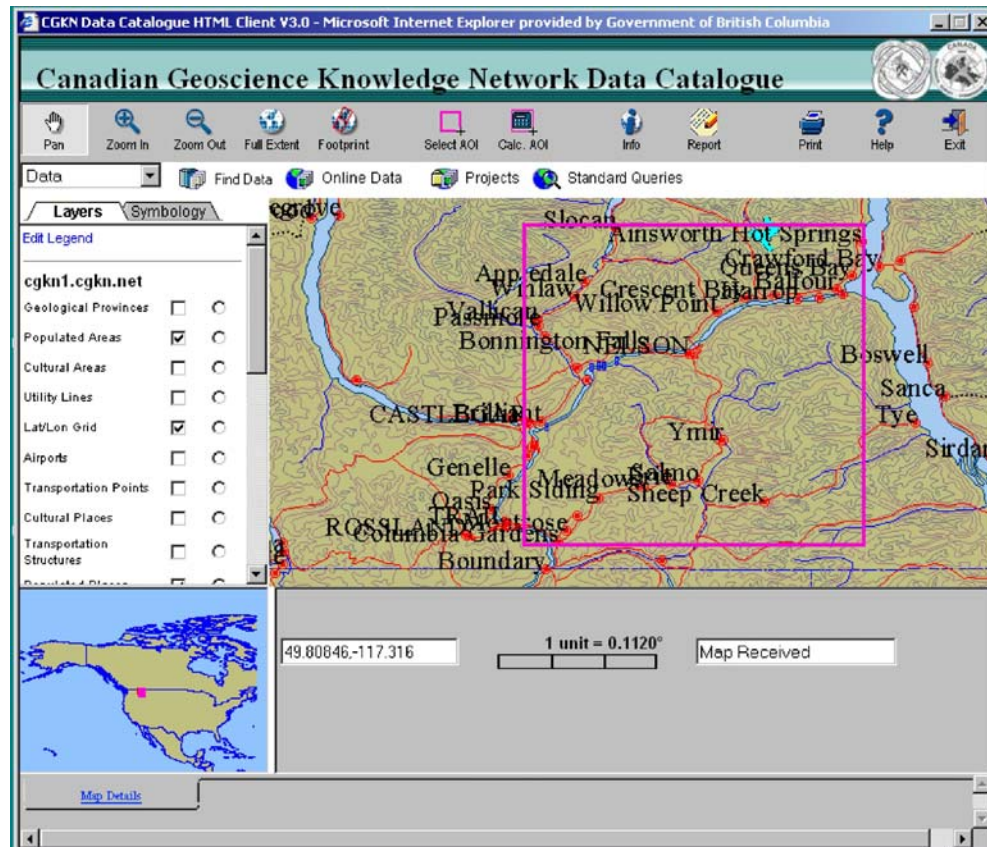


4. ArcExplorer map window showing geology, mineral occurrences and claims in the vicinity of the Kena prospect.

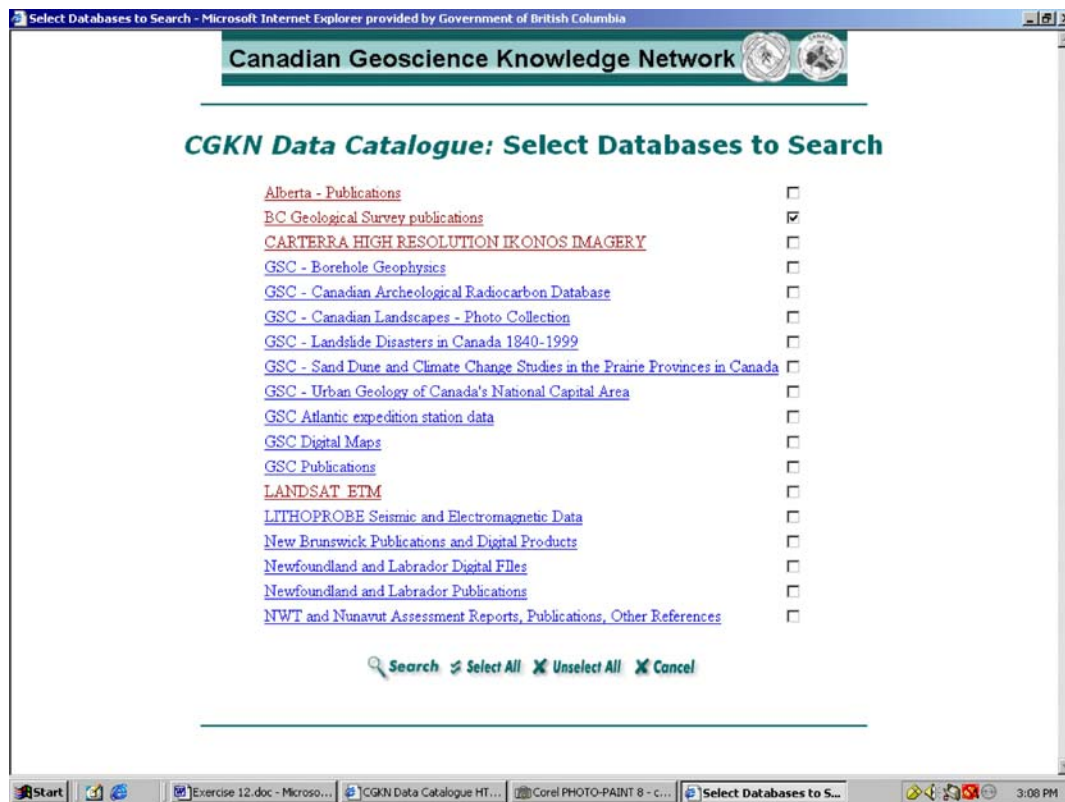
Exercise #12 - Searching for Data using the Canadian Geoscience Knowledge Network (CGKN) Internet Portal



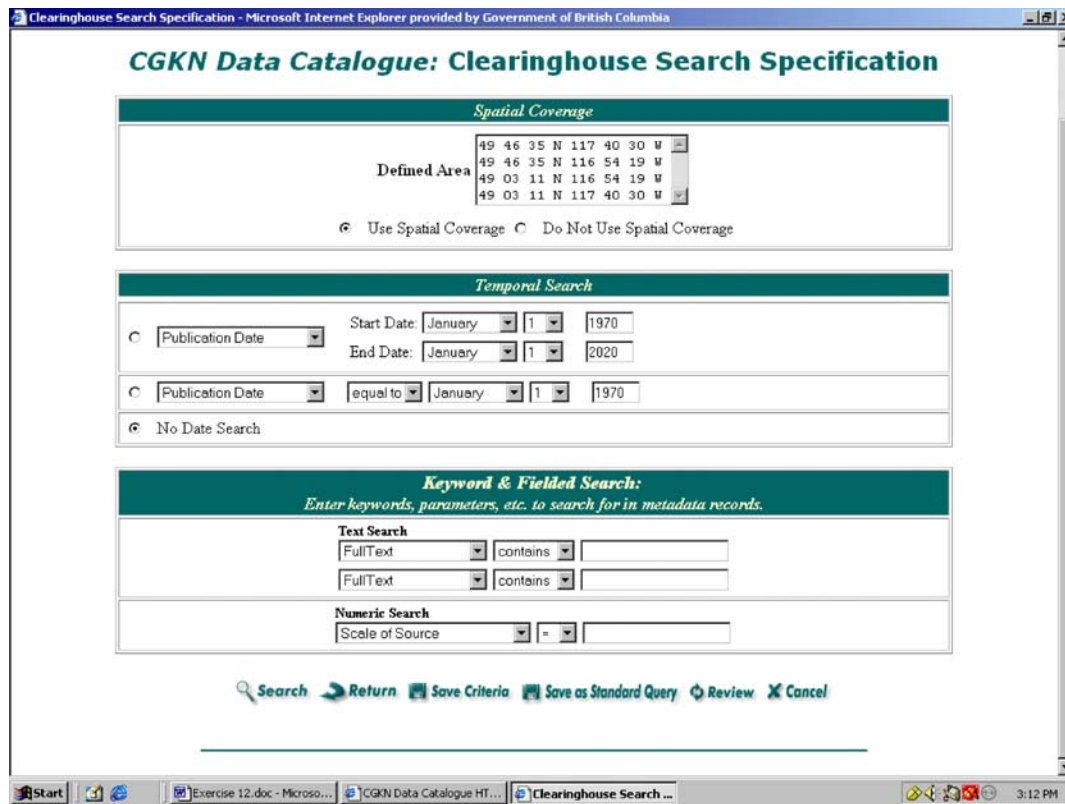
1. The Canadian Geoscience Knowledge Network data catalogue login page.



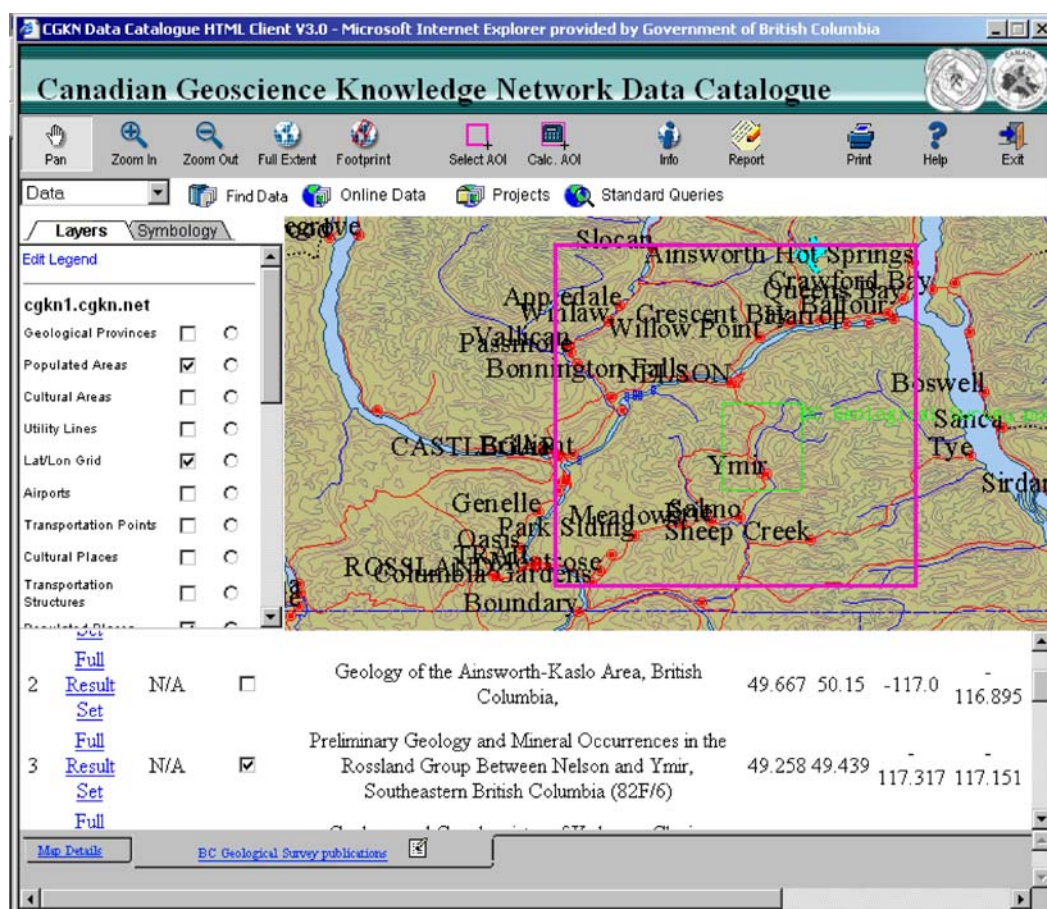
2. Zooming into and selecting an area of interest (AOI) from the map interface. After selecting an AOI click the FindData button to begin your search.



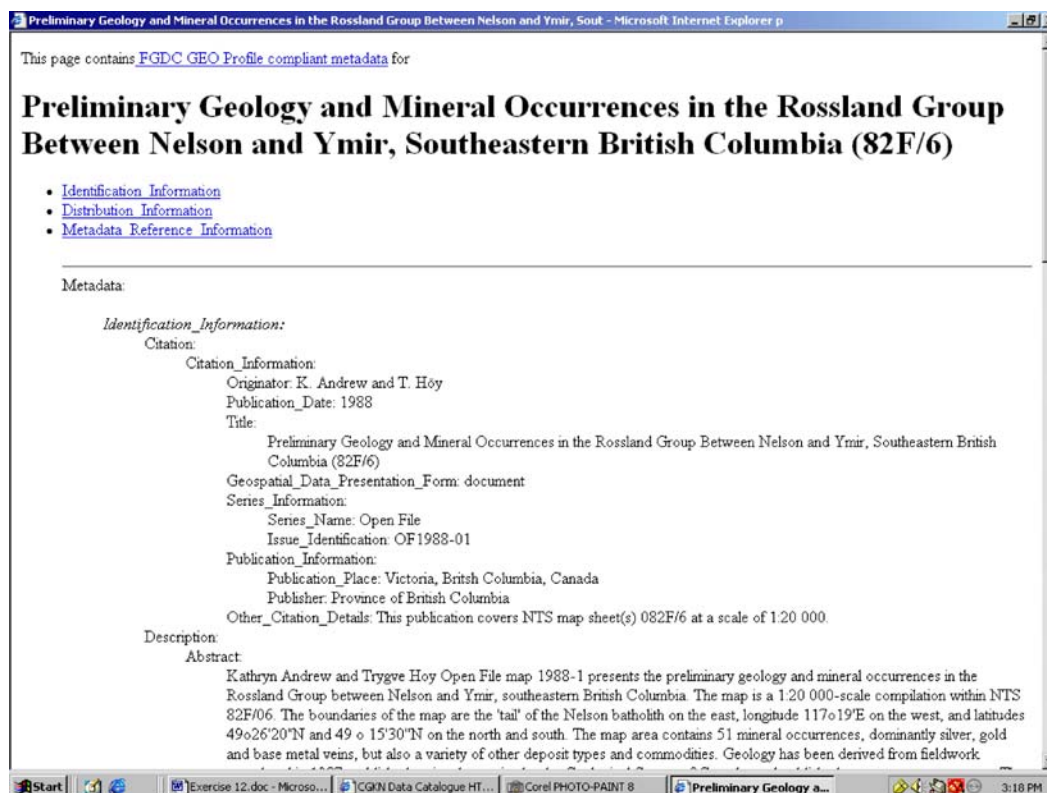
3. Database selection page with the BCGS publications database selected. Click search to continue.



4. Search specifications page with defined area set to selected AOI.



5. Search results (bottom frame) and map window showing location (footprint) of publications selected from the list. To access metadata click on the [Full Result Set](#) hypertext.



5. FGDC metadata listing for selected publication.

APPENDICES

Appendix 1

Autodesk MapGuide Viewer R6 Help

<http://www.mapguide.com/help/ver6/viewer/en/index.htm>

Appendix 2

The MapPlace Toolbar and Popup Menu

<http://www.em.gov.bc.ca/Mining/Geosurv/MapPlace/menudesc.htm>

Appendix 3

The MapPlace Frequently Asked Questions

<http://www.em.gov.bc.ca/Mining/Geosurv/MapPlace/faq.htm>

Appendix 4

The MapPlace: An award winning Internet exploration service for BC

Appendix 5

Using Web-Based Mineral Exploration Data as an Environmental Tool

Appendix 6

Power Point Presentation Slides

Appendix 7

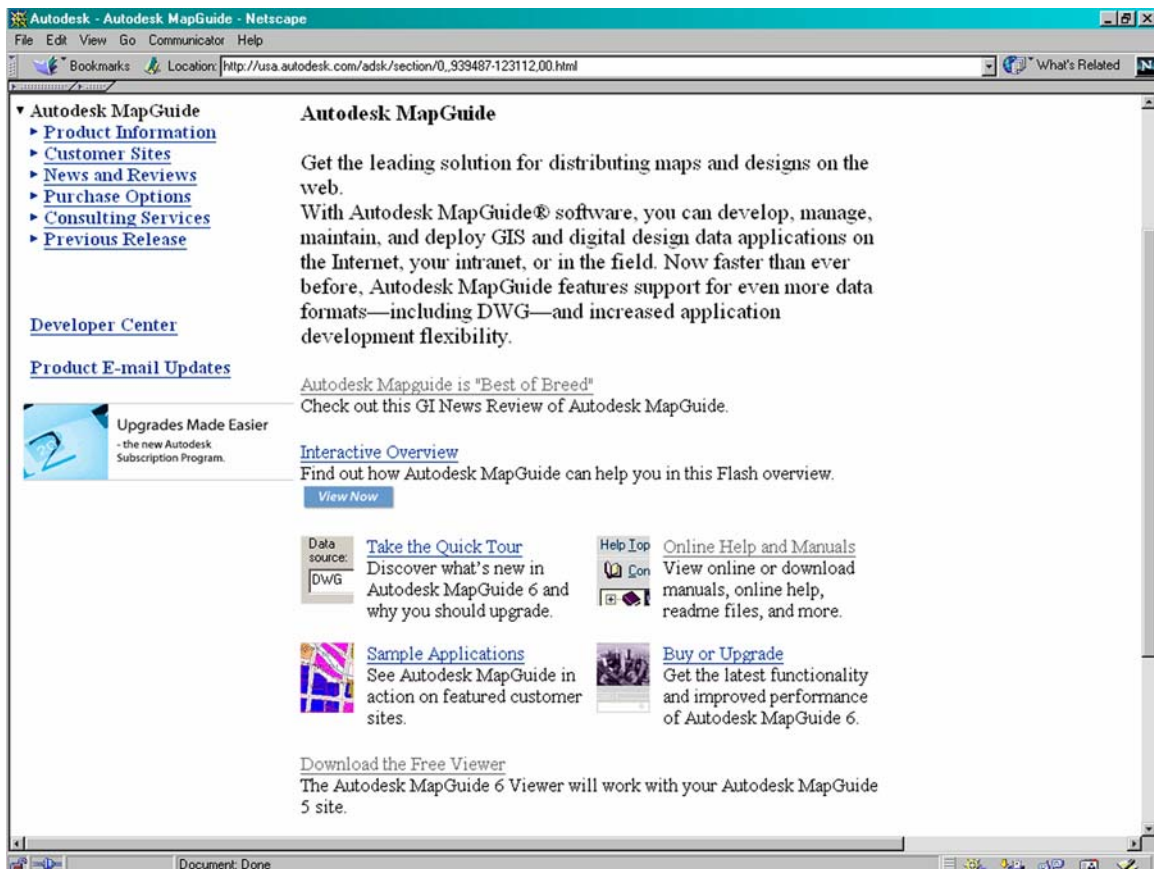
Overview of ArcExplorer©

<http://www.esri.com/software/arcexplorer/index.html>

Appendix 1

Autodesk MapGuide Viewer R6 Help

<http://www.mapguide.com/help/ver6/viewer/en/index.htm>



Autodesk MapGuide Viewer

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Welcome to Autodesk MapGuide Viewer

Introduction

Autodesk MapGuide® Viewer allows you to interact with maps that were created using Autodesk MapGuide® Author. Using Autodesk MapGuide Viewer, you can zoom in and out on a map, find specific features, select features that meet certain criteria, display information about selected features, print the current view of the map, and more.

In addition to this HTML-based help that you are currently viewing, there is also a Portable Document Format (PDF) version of the help called *MGViewerHelp.pdf*, which is located on the top level of the Autodesk MapGuide® CD. With this file, you can search and print the entire help contents easily. Note that you must have Adobe Acrobat Reader, which is included on the Autodesk MapGuide CD, installed on your computer to view *MGViewerHelp.pdf*.

What Is a GIS

Autodesk MapGuide® is a geographic information system (GIS). Unlike a typical map, which shows only spatial data such as roads, cities, and country borders, a GIS links attribute data such as population statistics to the spatial data in a map. This link provides the ability to analyze spatial data, letting you use map data in a whole new way. After you have worked with the map and the data to specify what you want to display, you can copy the current map view into a report or print it, giving your reports and presentations greater impact and clarity.

Contents of the Maps

The maps you work with in Autodesk MapGuide Viewer were assembled and edited in Autodesk MapGuide Author, a program in which the person creating the map (who is referred to as the *map author*) specifies the data that will be on the map. The map author can create display themes that vary the display of map features according to certain values. For example, one theme might display counties in a range of colors to indicate population, allowing you to quickly spot the counties with the lowest or highest populations. The map author also specifies the commands that appear in the popup menu, the data you can access, how far you can zoom in and get detail, the reports associated with the map, and more.

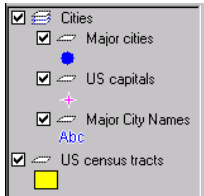
Autodesk MapGuide Viewer displays only the popup menus, data, and reports that the map author included when creating the map. If you need data that is not included in the map you are viewing, we recommend that you contact the author of the map.

Organization of Data into Layers

The map author organizes the data in a map into *map layers*. Layers are like transparencies that can be stacked and viewed at one time, or viewed separately. For example, there might be one layer that contains roads, another that contains cities, and another that contains state boundaries. When you turn on all of the layers, you see a single map with all of the data: roads, cities, and states. To see only the states and cities, you can turn off the roads layer to hide the roads.

The map author can also separate different types of data into separate layers, and even separate different levels of detail into separate layers. Additionally, because the map data is on separate layers, you can easily select the features you want from a specific layer without selecting overlapping features from other layers.

A map can also contain groups of layers, which are called *layer groups*. With layer groups, you can turn on or off all of the layers in the group at one time. In the following illustration, "Cities" is a layer group. For more information about layers, see Working with Layers and Layer Groups.



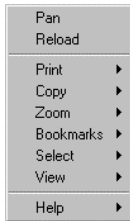
Accessing Commands

You can access commands in Autodesk MapGuide Viewer using either the toolbar buttons or the map window popup menu. The toolbar buttons appear across the top of the map window.

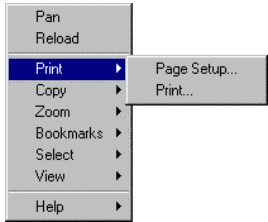


For a description of each of the buttons on the toolbar, see the Toolbar Button Summary.

The map window popup menu appears when you click the right button on your mouse (referred to as "right-clicking") anywhere in the map.



After you right-click to display the map window popup menu, you can click one of the items in the menu to choose that command. When you click a command that has a right arrow next to it (such as Print), a secondary popup menu appears.



When you right-click in the legend instead of in the map window, a separate legend popup menu appears. For descriptions of all of the menu commands in both the map popup menu and the legend popup menu, see Popup Menu Command Summary.

Available Versions of Autodesk MapGuide Viewer

Autodesk MapGuide Viewer is available as a Microsoft® ActiveX® Control, a Netscape® Plug-In, and a Java™ Edition. Depending on your Web browser and system, you should download one of the following versions of the Viewer:

- If you are using Netscape® Navigator® 4.x, Microsoft Windows® 98 Second Edition, Windows NT® 4.0 with Service Pack 6a, or Windows 2000 Professional with Service Pack 1, download Autodesk MapGuide Viewer Plug-In.
- If you are using Microsoft® Internet Explorer 5.x, Microsoft Windows 98 Second Edition, Windows NT 4.0 with Service Pack 6a, or Windows 2000 Professional with Service Pack 1, download Autodesk MapGuide Viewer ActiveX Control.
- If you are using an Apple® Macintosh® or Sun® Solaris®, download the Java Edition of Autodesk MapGuide Viewer. For more information about the Java Edition, see About the Java Edition of Autodesk MapGuide Viewer.

You can download and install more than one version of the Viewer. For example, if you want to use Autodesk MapGuide Viewer with both Netscape Navigator and Microsoft Internet Explorer, download and install both the Plug-In and the ActiveX Control. When you access certain Web pages, the Autodesk MapGuide ActiveX Control is automatically downloaded to your machine if it is not already installed. For more information, including information about how to delete the ActiveX Control, see Downloading and Installing the Autodesk MapGuide ActiveX Control Automatically.

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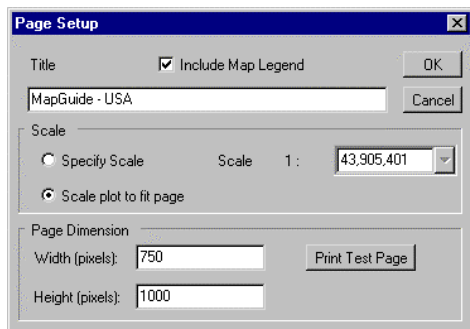
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About the Java Edition of Autodesk MapGuide Viewer

Because the Java Edition of Autodesk MapGuide Viewer is based on Java technology, you have the flexibility of viewing maps on platforms other than Windows, but some features do not work the same way as they do using the Plug-In or ActiveX Control versions of Autodesk MapGuide Viewer. The following traits are unique to the Java Edition.

Printing

Before you print, you must enter the size of the page to print in the Page Setup dialog box.



You can click the Print Test Page button to print a sample page that shows rectangles of different sizes to determine the best printing size. You then enter these dimensions in the Page Dimension text boxes in the Page Setup dialog box.

Bookmarks

If you are using the Plug-In and/or ActiveX Control in addition to the Java Edition, and you have created bookmarks for the Plug-In or ActiveX Control, you cannot access those bookmarks with the Java Edition.

Copying

Java provides no mechanism for copying maps to the Clipboard. Thus, the Copy > Copy command does not appear in the popup menu, and the Copy button does not appear on the toolbar.

Colors

Depending on your system, the quality of the colors displayed may vary.

Regional Customizations

The Java Edition will recognize changes you make to your Regional Settings or Input Locales for your system, as long as you use the default options. If you customize the number, time, date, or currency options, however, the Java Edition will not recognize them.

Internet Explorer

If you are using the Java Edition of Autodesk MapGuide Viewer with Internet Explorer and you click outside any Autodesk MapGuide Viewer dialog box, the dialog box will go behind the Internet Explorer window.

Using Autodesk MapGuide Viewer

Opening a Map

When you open a map in your Web browser, it launches Autodesk MapGuide Viewer to display the map. You can then change the view of the map by zooming, panning, or using bookmarks to see the exact portion of the map you want.

To open a map

1. Choose File > Open Location in Netscape Navigator (in Navigator 4.06, choose File > Open Page), or choose File > Open in Microsoft Internet Explorer.
2. Enter the map's URL, and then click OK (in Navigator 4.06, click Open).
3. If any of the initial layers in the map are password protected, you are prompted for a password. At the prompt, type your user name and password in the provided boxes. If you do not have a password, check with the author of the map.

The map appears in the Autodesk MapGuide Viewer window.

Changing the Map View

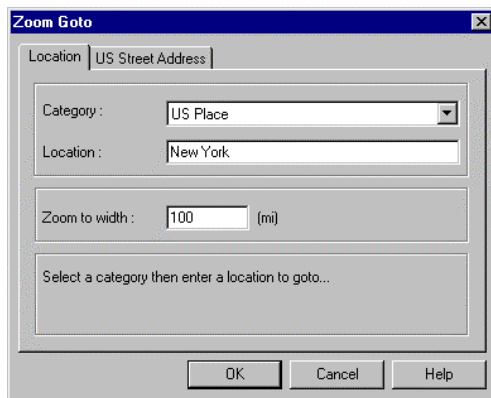
You can do any of the following operations to change the view of a map:

- Zooming to a Specific Location or Address
- Zooming to a map width
- Zooming to a map scale
- Zooming in by a magnification factor of two
- Zooming to a rectangular area
- Zooming to selected map features
- Zooming to the previous view
- Zooming out by a magnification factor of two
- Zooming out to display the entire map
- Moving up, down, left, or right (panning)
- Saving the current view in a bookmark
- Viewing a bookmark
- Deleting a bookmark

Zooming to a Specific Location or US Street Address (Zoom Goto Command)

You can use the Zoom Goto dialog box to zoom to a location, such as an airport, or to a US street address or ZIP code.

To display the Zoom Goto dialog box, click the Zoom Goto button on the toolbar, or right-click in the map and choose Zoom > Goto from the popup menu.



You can now do one of the following tasks.

To zoom to a location:

1. Click the Location tab, and then select a category from the Category list.
2. Type a location name to use as the center of the map, type the map width to display, and then click OK.

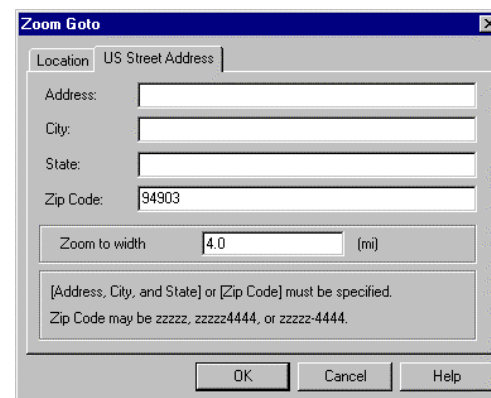
You can enter just a portion of the name you are looking for. Autodesk MapGuide will return a list of places that contain the text you entered. For example, to find San Francisco, you could type "San" to receive a list of all places that begin with "San," and then choose San Francisco from the list.

Note You specify the width in the current display units. If the location you're zooming to is a point or text feature, type the width of the area you want to display in the map window. If the location is not a point or text feature and you specify a width, the width setting will be ignored.

3. If the zoom location has an access key assigned to it, enter the access key. You will need to contact the author of the map if you do not know the access key.

To zoom to a street address or ZIP code:

1. Click the US Street Address tab (not available on all maps), and then enter a complete US street address (address, city, and state) or a ZIP code.



2. Type the map width to display, and then click OK.

Note You specify the width in the current display units.

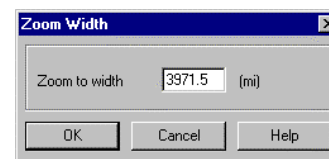
Zooming to a Map Width

You can zoom to a specific width in a map.

Note You specify the width in the current display units.

To zoom to a map width

1. Right-click in the map, and then choose Zoom > Width from the popup menu to display the Zoom Width dialog box.



2. Enter a value in the Zoom Width dialog box, and then click OK.

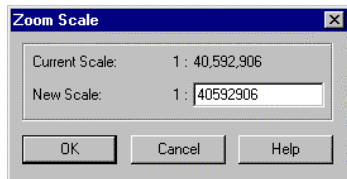
The map zooms in or out to the width you specified, retaining the current center of the map.

Zooming to a Map Scale

You can specify the map scale to zoom to. Remember that the larger the second number in the scale ratio is, the more you will zoom out, so you will display a larger area with less detail. The smaller the second number is, the more you will zoom in, so you will display a smaller area with more detail.

To zoom to a map scale

1. Right-click in the map, and then choose Zoom > Scale from the popup menu to display the Zoom Scale dialog box.



2. In the text box, type the scale ratio you want to use. For example, to zoom to a scale of 1:200000, type 200000 in the text box.
3. Click OK.

The map zooms in or out to the scale you specified, retaining the current center of the map.

Zooming In by a Magnification Factor of Two

You can click a point in the map to zoom in on that point.

To zoom in by a magnification factor of two

1. Click the Zoom button on the toolbar, or right-click in the map and choose Zoom > Zoom from the popup menu.
2. Click a point to be the center of the redrawn map.

The map zooms in on the point you clicked to display the map at twice the previous magnification.

You can continue to zoom in by clicking another point in the map.

3. When you finish zooming, press ESC, click the Select button on the toolbar, or choose Select > Select from the Map Window popup menu. Note that pressing ESC does not work if you are using the Java Edition of the Viewer on an Apple Macintosh computer.

Zooming to a Rectangular Area

You can use the mouse pointer to draw a rectangular area on the map and then zoom in to that area.

To zoom to a rectangular area

1. Click the Zoom button on the toolbar, or right-click in the map and choose Zoom > Zoom from the popup menu.
2. Press the mouse button and drag to draw a rectangle over the area you want to display.

When you release the mouse button, the rectangle disappears, and the map zooms in to display the area within the rectangle at the highest possible magnification.

You can continue by zooming in on other rectangular areas.

3. When you finish zooming, press ESC, click the Select button on the toolbar, or choose Select > Select from the popup menu. Note that pressing ESC does not work if you are using the Java Edition of the Viewer on an Apple Macintosh computer.

Zooming to Selected Map Features

After you select features in a map, you can zoom in to display just enough of the map to show those features.

To zoom to selected map features

1. Select one or more features.
2. Right-click in the map, and then choose Zoom > Selected from the popup menu.

The map centers on the selected features and zooms in far enough to display only the selected features.

Zooming to the Previous View

You can redraw the map at the previous zoom magnification and location.

To zoom to the previous view

- Right-click in the map, and then choose Zoom > Previous from the popup menu, or click the Zoom Previous button on the toolbar.

Zooming Out by a Magnification Factor of Two

You can click a point on the map to recenter the map on that point and zoom out.

To zoom out by a magnification factor of two

1. Click the Zoom Out button on the toolbar, or right-click in the map and choose Zoom > Out from the popup menu.
2. Click a point on which to center and redraw the map.

The map zooms out on the point you clicked and displays the map at half the previous magnification.

You can continue to zoom out by clicking another point in the map.

3. When you finish zooming out, press ESC, click the Select button on the toolbar, or choose Select > Select from the Map Window popup menu. Note that pressing ESC does not work if you are using the Java Edition of the Viewer on an Apple Macintosh computer.

Zooming Out to Display the Entire Map

You can zoom out to display the entire map.

To zoom out to display the entire map

- Click the Unzoom button on the toolbar, or right-click in the map and choose Zoom > Unzoom from the popup menu.

Moving Up, Down, Left, or Right (Panning)

You can move the map around to display areas that are outside of the current view.

To move up, down, left, or right (pan)

1. Click the Pan button on the toolbar, or right-click in the map and choose Pan from the popup menu. Notice that the cursor changes to a "hand."
2. Press the mouse button and drag to move the map around.
3. Release the mouse button to redraw the map and show the new view.

You can continue panning by dragging the map again.

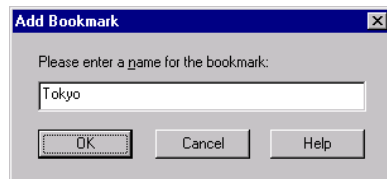
4. When you finish panning, press ESC, click the Select button on the toolbar, or choose Select > Select from the Map Window popup menu. Note that pressing ESC does not work if you are using the Java Edition of the Viewer on an Apple Macintosh computer.

Saving the Current View in a Bookmark

After you zoom and pan to position the map exactly as you want it, you can save the current view of the map as a bookmark. A bookmark saves all of the information about the current view of the map under a name you specify. By using the bookmark in the future, you can go directly to this same view of the map without having to zoom and pan again. To save the current view as a bookmark, do the following:

To save the current view in a bookmark

1. Right-click in the map, and then choose Bookmarks > Add Bookmark from the popup menu to display the Add Bookmark dialog box.



2. Enter a name for this bookmark, and then click OK.

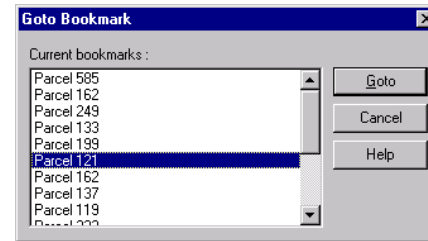
Note Be sure to use a unique name for the bookmark. If you use an existing name, both bookmarks will appear in the menu under the same name with no way to tell them apart. The name you type or select for your bookmark cannot contain any commas (,), question marks (?), ampersands (&), or pound symbols (#).

Viewing a Bookmark

You can go directly to a map or portion of a map that you saved previously as a bookmark.

To view a bookmark

1. choose Bookmarks from the popup menu.
2. Click the name of the bookmark you want to view. If you have added more bookmarks than can be displayed in the popup menu, choose Bookmarks > More Bookmarks from the popup menu, and then select the bookmark you want from the Goto Bookmark dialog box.



Deleting a Bookmark

You can delete one or more bookmarks if you no longer need them.

- Choose Bookmarks > Delete Bookmarks from the popup menu, select the bookmark(s) you want to delete, and then click OK.

Working with Map Features

After you have opened your map and moved it around to display the features you want, you can identify the map features, measure distances between them, and follow any links they contain.

- Identifying map features
- Measuring distances
- Following links to Web pages

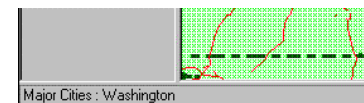
Identifying Map Features

When you pause the mouse pointer over a map feature, you see the name of that map feature displayed in a small yellow popup window called a MapTip. For example, when you position the mouse pointer over Washington, the MapTip displays the name of the city, as shown in the following illustration.



The MapTip disappears when you move the mouse again. If a name has not been provided for this feature on this map, the MapTip does not appear.

Also, if the map has a status bar, you will see the layer name and the name of the map feature displayed on the status bar when you pause the mouse pointer over the map feature, as shown in the following illustration.



In this illustration, the status bar indicates that the mouse is currently positioned over Washington, which is on the Major Cities layer.

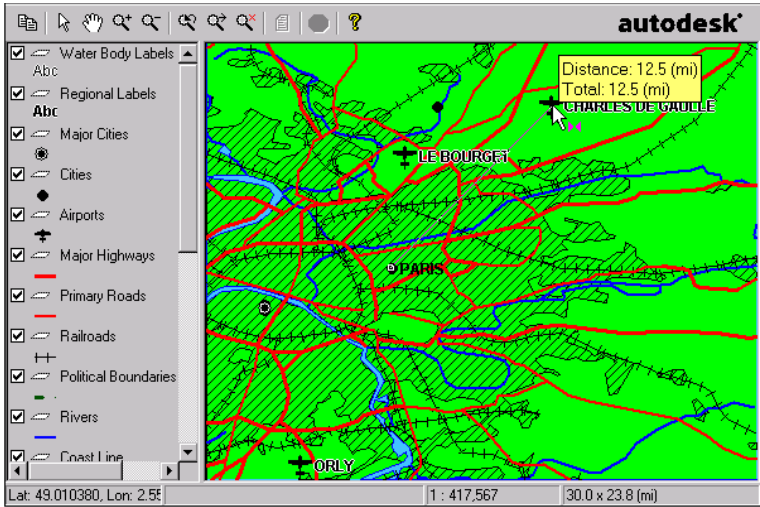
Measuring Distances

You can measure the distance between two points on the map. You can also measure the distance between several points to get a cumulative total distance. For example, if you want to know approximately how far you would travel if you flew from Paris to London to New York, you could measure each leg of the trip and get a cumulative total. Note that, depending on which map projection the author of the map chose, the distances measured may vary in accuracy. For example, if the map author chose a projection that provides the most accurate results when you measure the distance between two points in France, the accuracy will decrease if you measure the distance between points across the world. For more information, contact the author of the map.

To measure the distance between points on a map

- 1. Right-click in the map, and then choose View > Distance from the popup menu.
- 2. To measure the distance between two points, click the first point, and then pause the mouse pointer over the second point.

As you move the pointer, the measurement of the distance appears dynamically in a MapTip (the yellow box), as shown in the illustration below. If the Display Mouse Position check box is selected in the Preferences dialog box, the coordinates of the cursor are displayed in the status bar.



You may notice when you measure distances in some maps that the MapTip displays "Great Circle Distance" rather than "Distance." This means that the map author specified that the Great Circle distance formula be used for measuring distances instead of the default Euclidean formula. Great Circle distance measurement is more accurate than Euclidean measurement for maps that use geographic coordinate systems. In rare circumstances, you may notice that the MapTip for distance measurements changes from "Great Circle Distance" to "Distance" within the same map. If this happens, it means that

you have a selected a point that cannot be measured using the Great Circle method because it is outside the mathematical range of the map projection.

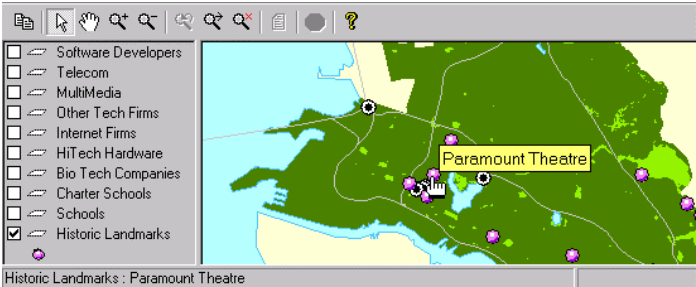
- 3. To measure the distance from the second point to a third point, click the second point, and then pause the pointer over the third point.

The distance between the second and third point appears on the status bar and in the MapTip display, along with the total of all distances measured.

- 4. To clear the cumulative distance and exit the View > Distance function, click the right mouse button, double-click the left mouse button, or press ESC. Note that pressing ESC does not work if you are using the Java Edition of the Viewer on an Apple Macintosh computer.

Following Links to Web Pages

When you pause the mouse pointer over a feature that is linked to a Web page, the pointer changes from an arrow to a pointing hand , as shown in the following illustration.



The name of the feature appears in a MapTip, and the uniform resource locator (URL) of the Web page linked to this feature appears at the bottom of your Web browser window. To display the linked Web page, double-click the feature.

Selecting Map Features

When you select features on a map, you can then view a report that provides information about the selected features, or you can adjust the map display to zoom to the selected features. The number and type of selected features are displayed on the status bar at the bottom of the map.

Note When you select a map feature, Autodesk MapGuide selects the feature by its key. Therefore, if you select a map feature that contains multiple points, each of which has the same key, each of those points will be selected. Similarly, if there are multiple features in the map with the same key, selecting one of those features will select all features that share that same key.

You can do any of the following to select features on a map:

- Specifying the selection mode
- Selecting features within other map features
- Selecting features within a specified distance from other map features (View Buffers command)
- Selecting map features by name
- Selecting individual map features

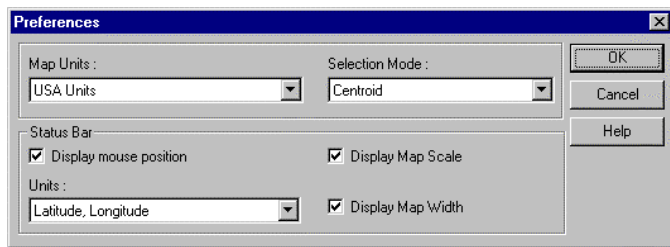
- Selecting all map features in a rectangular area
- Selecting all map features in a circular area
- Selecting all map features in a polygonal area
- Deselecting map features

Specifying the Selection Mode

By default, when selecting features inside a rectangle, circle, polygon, or buffer, Autodesk MapGuide selects only those features whose centroids (center points) are within that selection area. However, you can specify that you also want to select features that intersect the selection area.

To specify the selection mode

1. Right-click in the map, and then choose Help > Preferences from the popup menu to display the Preferences dialog box.



2. Click the Selection Mode drop-down list, and then choose the method you want to use for selecting features inside of other features.

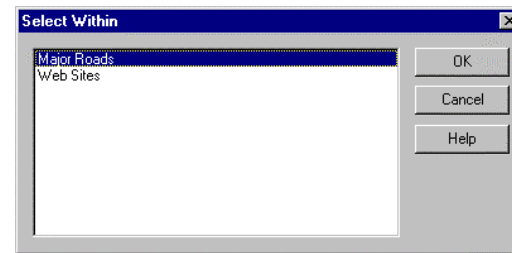
If you choose Centroid (the default), only those features whose centroids are within the selection area will be selected. If you choose Intersection, features that touch, intersect, or are within the selection area will be selected.

Selecting Features Within Other Map Features

Autodesk MapGuide Viewer can select all map features that are within selected polygon map features. The polygons should be on their own layer in order for this command to work effectively.

To select features within other map features

1. Select the polygon map feature(s) containing the map features you want to select.
2. Right-click in the map, and then choose Select > Within from the popup menu to display the Select Within dialog box.



3. Choose the map layer containing the map features you want to select should they fall within the polygon(s) you selected in Step 1, and then click OK.

For example, if you selected a buffer feature in step 1 that represents a specific distance from a customer's location, and you want to find all Acme Widget resellers within that specified distance from the customer's location, you would select the layer that contains the reseller locations.

All map features from the specified layer that fall within the previously selected polygon(s) are now selected.

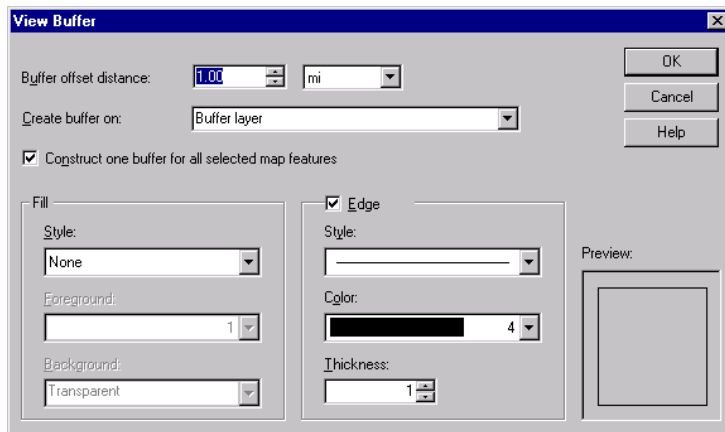
Selecting Features Within a Specified Distance from Other Map Features (View Buffers Command)

By creating a buffer around selected map features, you can view all features that fall within that buffer. This is particularly useful in site selection. For example, you could create a buffer to find all vacant lots within two miles of your stores, or using a report that will calculate area, you could determine the total area within the buffers around your stores.

To select features within a specified distance from other map features

1. Select the map features around which you want to create buffers.
2. Right-click in the map, and then choose View > Buffer from the popup menu.

The View Buffer dialog box appears.



3. In the Buffer Offset Distance text box, type the distance you want the buffers to extend from the selected features, and then select the unit (such as miles or kilometers) you want to use from the drop-down list.

For example, to find all features within two miles of your stores, type 2 in the text box and choose "mi" from the unit list. Note that you can also use the up and down arrows to increase or decrease the distance.

4. To treat all of the buffer areas as a single feature, instead of treating each buffer area as a separate feature, select the Construct One Buffer For All Selected Map Features check box.

This is particularly useful if any of your buffers overlap and you do not want the overlapping area counted twice. For example, if you want to determine the total area around your stores, and two stores are close enough that their buffers overlap, you would not want to count the overlapping area twice. Overlapping buffers will also appear differently on the screen. For example, if you did not select this check box, overlapping buffers might display like this:



If you did select this check box, however, the same buffers would display like this:



5. In the Create Buffer On list, select the map layer on which you want to create the buffers, or type a new name to create a new map layer that contains only the buffers.
6. In the Fill area, specify the style, color, and pattern to use for filling the buffer areas.

7. If you chose a hatch pattern for the fill, the color you specified is for the pattern, so you need to specify settings for the background behind the pattern. In this case, in the Background area, specify whether the background should be opaque (buffers cover the map features) or transparent (map features show through the buffers), and the color to use for the background.
8. In the Edge area, specify the style, color, and thickness to use for drawing the outer line around the buffer areas.
9. Click OK.

Autodesk MapGuide creates the buffers around the selected features. To select the features within the buffers, you select the buffers, and then use the Select Within command to select map features from other layers that fall within the buffers.

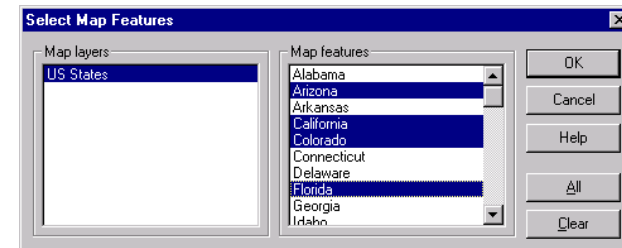
If you receive an error message about low memory while processing the buffers, see Improving Buffer Processing.

Selecting Map Features by Name

If you know the names of the map features you want to select, you can select them from a list.

To select map features by name

1. Right-click in the map, and then choose Select > Select Map Features from the popup menu to display the Select Map Features dialog box.



2. In the Map Layers list box, select the map layer that contains the map features you want to select.
3. In the Map Features list box, select the map features you want by doing one or more of the following:
 - Click a single map feature. For example, click Connecticut to select it.
 - Shift-click to select multiple contiguous features. For example, click Arizona, and then Shift-click California. Arizona, Arkansas, and California are all selected.
 - Ctrl-click to select multiple non-contiguous features. For example, after selecting Arizona through California, you could Ctrl-click Connecticut to add it to the selection without adding Colorado as well. You can also Ctrl-click to deselect individual features from the group of selected features.
 - Click All to select all features in the list.
 - Click Clear to deselect all features in the list.
4. When you finish selecting the map features you want, click OK.

Selecting Individual Map Features

You can easily select an individual map feature.

To select individual map features

Do one of the following:

- Turn on Selection mode by clicking the Select tool on the toolbar or by choosing Select > Select from the popup menu, and then click the feature. This selects the feature and deselects all previously selected features.
- While in Selection mode, Shift-click the feature. This adds the feature to the group of previously selected features.

Selecting All Map Features in a Rectangular Area

You can draw a rectangle to select all map features that fall within that rectangular area.

To select all map features in a rectangular area

1. Turn on Selection mode by clicking the Select tool on the toolbar or by choosing Select > Select from the popup menu.
2. Click the left mouse button, drag the mouse pointer diagonally until the rectangle covers the area you want, and then release the mouse button.

All map features that are within the rectangular area are now selected.

Selecting All Map Features in a Circular Area

You can draw a circle to select all map features that fall within that circular area.

To select all map features in a circular area

1. Right-click in the map, and then choose Select > Radius from the popup menu.
2. Press and hold the left mouse button on a center point, drag to define the radius, and then release the mouse button.

The radius appears dynamically on the status bar at the bottom of the map as you drag the pointer. When the pointer stops, the radius also appears as a MapTip.

All map features that are within the circular area are now selected.

Selecting All Map Features in a Polygonal Area

You can draw a polygon to select all map features that fall within that polygonal area.

To select all map features in a polygonal area

1. Right-click in the map and choose Select > Polygon from the popup menu.
2. With the left mouse button, click each point that you want to use as a vertex of the polygon.
3. On the last vertex you want to use, double-click using the left mouse button.

All map features that are within the polygonal area are now selected.

Deselecting Map Features

You can deselect map features after you have selected them.

To deselect one feature while leaving the other features selected

- Shift-click the feature you want to deselect.

To deselect all features

Do one of the following:

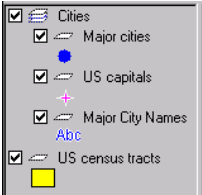
- Right-click in the map, and then choose Select > Clear from the popup menu.
- Press ESC. Note that this does not work if you are using the Java Edition of the Viewer on an Apple Macintosh computer.

Working with Layers and Layer Groups

The map legend displays layers and groups of layers, called *layer groups*. You can control the layers and layer groups in the following ways:

- Display or hide layers or layer groups
- Display or hide the list of layers in a layer group
- Turn on or off all the layers in a layer group
- Rebuild layers
- Show or hide a list of styles for a layer
- Show or hide a list of theme categories for a layer

In the following illustration, "Cities" is a layer group, and the other items are layers.



Displaying or Hiding Layers or Layer Groups

You can display or hide the features on a map layer by turning the layer on or off. This is useful for viewing exactly the features you want to see.

To turn on a layer or layer group

- Select the check box next to the layer or layer group's name in the legend.

To turn off a layer or layer group

- Clear that check box next to the layer or layer group's name in the legend.

Note If you select more than one layer or layer group, and then select or clear the check box, the display status of all the selected items will be the same.

Displaying or Hiding the List of Layers in a Layer Group

You can show or hide the list of layers in a layer group. Note that showing or hiding the list of layers does not turn the layers on or off; it simply displays the layer names in the legend.

To show the list of layers in a layer group

- Right-click the layer group and choose Expand from the popup menu, or simply double-click the layer group.

To hide the list of layers in a layer group

- Right-click the layer group and choose Collapse from the popup menu, or simply double-click the layer group.

To change the status of multiple layer groups

- Select multiple layer groups and then choose Expand or Collapse from the popup menu.

Turning On or Off All the Layers in a Layer Group

You can turn on or off all of the layers in a layer group with a single command.

To turn on all the layers in a layer group

- Right-click the layer group and choose Turn On All Layers from the popup menu.

To turn off all the layers in a layer group

- Right-click the layer group and choose Turn Off All Layers from the popup menu.

Rebuilding Layers

If a layer is not displaying properly, such as during a server error, you can rebuild it. If the map contains layer groups, you can rebuild all of the layers in the layer group. You can rebuild any layer except a buffer or redline layer.

The following illustration shows a layer that did not download correctly, indicated by the icon to the left of the layer name.



To rebuild layers

1. Select one or more layers or layer groups in the legend.
2. Right-click and choose Rebuild from the popup menu.

Showing or Hiding a List of Styles for a Layer

If a map layer has styles assigned to it, you can show or hide the list of styles for the layer.

To show the list of styles for a layer

1. Select one or more layers in the legend.
2. Right-click and choose Expand from the popup menu.

To hide the list of styles for a layer

1. Select one or more layers in the legend.
2. Right-click and choose Collapse from the popup menu.

Showing or Hiding a List of Theme Categories for a Layer

If the map author created a theme for a layer, the categories for that theme appear below the layer name in the legend. You can choose whether or not to display the names of these theme categories in the legend by expanding or collapsing the list.

To show or hide a layer's theme categories

- To expand a list, right-click the layer name in the legend and then choose Expand, or simply double-click the layer name.

The theme categories for the layer appear below their names in the legend.

- To compress a list, right-click the layer name in the legend and then choose Collapse, or simply double-click the layer name.

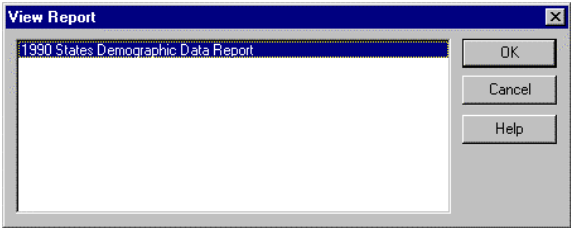
The theme categories for the layer disappear so that only the layer name is displayed in the legend. Note that although the list is collapsed, the theme categories are still active on the map.

Viewing Reports

Viewing a report provides information about selected map features or about a specified point. When you view a report, only information for the features you select appears in the report, so you get only the information you need. The reports available for the current map depend entirely on what reports the author of the map has set up and made available. For example, the author could set up a report that provides population and average household income, so that when you select cities and view the report, you will get the population and income information for those selected cities only.

To view a report for selected map features

1. Select the map features about which you want a report.
2. Right-click in the map and then choose View > Report from the popup menu, or click the Report button on the toolbar to display the View Report dialog box.



3. Choose the report you want to view, and then click OK.

By default, the report appears in a separate browser window.

To view a report about a specific point

1. Right-click in the map and then choose View > Report from the popup menu, or click the Report button on the toolbar to display the View Report dialog box.
2. Choose the report you want to view.
3. Click a point in the map.

By default, the report displays in a separate browser window.

Customizing the Display

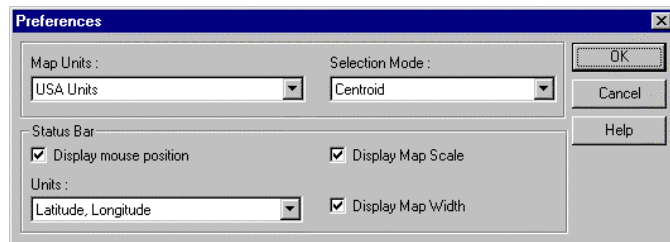
You can use the Preferences dialog box to customize the selection mode and the status bar. You can also use the Preferences dialog box to specify the selection mode (for more information, see Specifying the selection mode).

The preferences you specify are stored with your copy of Autodesk MapGuide Viewer, so all maps you view will use these settings, and you do not need to set preferences for every map. Note, however, that some of these settings can be controlled by API methods, so an application developer may have changed one or more of these settings. If a map author created a map without a status bar, the status bar preferences you specified are ignored when you display that map.

If the current map was published without a Help > Preferences command on the popup menu, you will not be able to set preferences while viewing this map. Instead, view a map that does contain the Help > Preferences command, and then set the preferences.

To customize the display

1. Right-click in the map, and then choose Help > Preferences from the popup menu to display the Preferences dialog box.



2. In the Map Units box, choose USA Units to display distances and map widths in feet/miles, or choose Metric to display distances and map widths in meters/kilometers.
3. To display the coordinates of the mouse pointer's position on the status bar as you move the mouse around on the map, select the Display Mouse Position check box, and then select the type of coordinates you want from the Units drop-down list. If you select "Mapping Coordinate System," the coordinates will be displayed in the units from the map's coordinate system.

Tip If there is not enough room on the status bar to display the mouse coordinates, clear the Display Map Scale check box and/or the Display Map Width check box to make more room.

4. To display the map scale on the status bar, select the Display Map Scale check box.
5. To display the map width on the status bar, select the Display Map Width check box.
6. Click OK.

Copying and Pasting Maps

You can copy the current map view in Autodesk MapGuide Viewer and then paste it into another application. When you copy the map view, it is copied to the Windows Clipboard, so that you can then paste the map view into another Windows application.

You can also copy the current view of the map as a URL. This is useful if you want to create a link from a Web page to this view of the map and you need to know the URL to link to.

Note Copying the map view to the Clipboard is not supported in the Java Edition of Autodesk MapGuide Viewer, but copying the map view as a URL is supported.

To copy and paste the map view

1. Use the Zoom and Pan commands from the popup menu or from the toolbar to display only the portion of the map you want to see. For more information about zooming and panning, see Changing the Map View.
2. Right-click in the map, and then choose Copy > Copy from the popup menu, or click the Copy button on the toolbar. The map view is now copied to the Clipboard.

Note The Windows keyboard shortcuts for Copy and Cut are not available in Autodesk MapGuide Viewer for copying or cutting maps.

3. Switch to the application in which you want to paste the map view.
4. Choose Edit > Paste.

The view of the map you copied now appears in the application.

To copy the map view as a URL

1. Use the Zoom and Pan commands from the popup menu or from the toolbar to display only the portion of the map you want to see.
2. Right-click in the map, and then choose Copy > As URL from the popup menu.

The URL describing the map view is now copied to the Clipboard.

Improving Performance

You can improve the performance of Autodesk MapGuide Viewer by improving processing speed, raster display quality, and buffer processing.

- Improving processing speed
- Improving raster display quality
- Improving buffer processing

Improving Processing Speed

There are a number of factors that can affect speed, some of which are known issues with specific Web browsers. The best way to improve performance is to author your maps with performance in mind. See the *Autodesk MapGuide User's Guide* and online help for more information.

Improving Raster Display Quality

Raster images are pictures, such as photographs, that are made up of small pixels, or cells. Raster images display differently from the vector (line- and point-based) drawing data in the map, such as roads and cities. If a raster image displays poorly, do one of the following:

To change the resolution of a raster image

- If a raster image appears to be at the wrong resolution, right-click the layer that contains the raster image, and then choose Rebuild from the legend popup menu. To rebuild multiple layers at one time, select the layers before choosing Rebuild. To rebuild all the layers in one or more layer groups, select the layer group or groups before choosing Rebuild.

To change the colors in a raster image

- If the colors in a raster image do not display correctly, minimize your Web browser window and then maximize it again. If the colors still do not display properly, set your Windows color palette to the highest number of colors. If your graphics card does not support more than 16 colors, the colors in some raster images will not display properly.

To change the color palette setting

1. In Windows 95, Windows 98, Windows NT, or Windows 2000, click the Start button, click Settings, and then click Control Panel.
2. Double-click the Display icon.
3. Click the Settings tab, and then choose the highest color setting in the Color Palette box.

In some cases, using True Color mode can cause intermittent problems with Netscape Navigator, so you should use the next highest setting instead. For details, see Known Issues.

Note If you are using the Java Edition of Autodesk MapGuide Viewer, the quality of the colors displayed can vary depending on your system.

Improving Buffer Processing

When you use the Construct One Buffer For All Selected Map Features option when creating buffers, and the buffering process fails with a message indicating low memory, try decreasing the buffer offset distance. If that is not possible, try creating a large, single buffer.

To create a large, single buffer

1. Follow the steps for creating buffers, but in step 1, select only half of the features you originally selected.
2. After creating the buffer for these features, select the remaining features that you want to buffer.
3. Create a buffer around these features.
4. Shift-click to select both buffers.

5. Create a new buffer around the two existing buffers. Use a very small value for the buffer offset distance, such as 0.01, to preserve the size of the two original buffers.

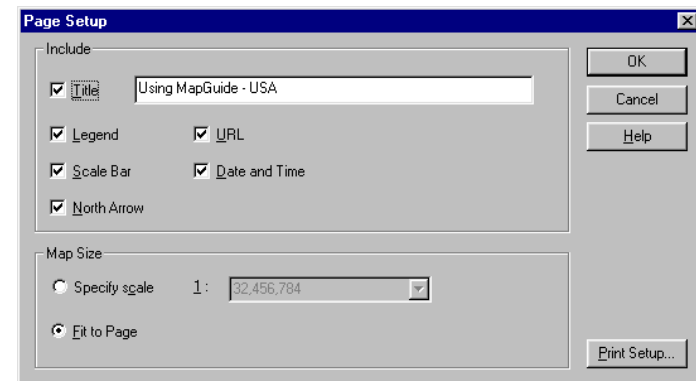
Preparing to Print a Map

When you print a map, you can include a title, a legend, the map's scale, a North arrow, the map's URL, and the current date and time. Also, you can specify the scale of the map you want to print, or you can have MapGuide automatically scale the map to fit the printed page. The following steps explain how to print the map when you use the Print > Print command from the popup menu in Autodesk MapGuide Viewer. If your map is embedded (if it appears within a Web page, rather than appearing in its own window), and you use your Web browser's print commands, the settings you specify in the following steps will not affect the way the map prints.

Note If you are using the Java Edition of Autodesk MapGuide Viewer, this dialog box will have some additional options you need to set. For more information, see About the Java Edition. If you are using the Java Edition of Autodesk MapGuide Viewer with Internet Explorer, and you click outside the Page Setup dialog box, the dialog box will go behind the Internet Explorer window.

To prepare to print a map

1. Right-click in the map, and then choose Print > Page Setup to display the Page Setup dialog box.



2. To print a title at the top of the map, select the Title check box and type the title in the Title text box. You can enter multiple lines for the title by inserting "\n" where you want line breaks.
3. To print the legend with the map, select the Legend check box.

If you chose to print the legend, note that the printed legend includes only visible layers. If the layer names are too long, they may be truncated.
4. To print a bar showing the scale of the map, select the Scale Bar check box.
5. To print a North arrow on the map, select the North Arrow check box. If the map uses arbitrary XY coordinates, this option is cleared by default but is still available.
6. To include the map's URL in the footer of the printed map, select the URL check box.

- 7. To include the current date and time in the footer of the printed map, select the Date And Time check box.
- 8. To print the map at a specific map scale, click Specify Scale, and then select the scale you want from the Scale list. To scale the map to fit the printed page, click Fit To Page.

No matter what scale you select, only the currently displayed map area prints. If the map is displayed at 1:40,000, and you specify that it should print at 1:70,000, the printed map will not show the larger area that would display at 1:70,000. Instead, only the area that is displayed at 1:40,000 is printed, at the scale of 1:70,000.

- 9. Click OK.

You are now ready to print the map.

Printing a Map

You can use either of the following methods to print a map:

- Use the Print > Print command from the map window's popup menu in Autodesk MapGuide Viewer. When you use this command, the map prints according to the current Page Setup settings. Note that if the Autodesk MapGuide Viewer is embedded in a Web page, this command prints only the map, not the entire page.
- Use the File > Print command in your Web browser. Note that if the Plug-In version of Autodesk MapGuide Viewer is embedded in a Web page, this command prints only the map, not the entire page.

To print the map

- 1. Click in the map to ensure that the frame to be printed is active.
- 2. Use the Zoom and Pan commands to adjust the view in the map window to the area you want to print, or go to an existing bookmark.
- 3. Use one of the methods described above to activate the Print command.
- 4. Specify the settings you want in the Print dialog box, and then click OK. If you are using the Java Edition of Autodesk MapGuide Viewer, you will first need to specify the page dimensions in the Page Setup dialog box.

Advanced Topics

URL Parameters

When you create a bookmark, you are simply saving the URL of the map with a set of parameters that indicate the map width, center point, and more. When you use a bookmark, Autodesk MapGuide Viewer reloads this URL with all the parameters that indicate exactly how to display the map.

If you know the URL of the map you want to view, and you know some of the values you want to use for particular parameters, such as the latitude/longitude of the center of the map, you can type them directly into the URL box in your browser, rather than manually moving the map. For example, if you know that the map name is *amap.mwf* and is located on www.mapguide.com, and you know the center point, map width, and map units, you could type the following URL:

<http://www.mapguide.com/amap.mwf?Lat=-110.0&Lon=43.1&Width=100&Units=mi&ext=.mwf>

The format of the URL should always be the URL of the map, followed by a question (?) mark, followed by the parameters you want to use (each separated by "&"), and lastly followed by "&ext=.mwf".

The following list shows all available URL parameters for Autodesk MapGuide Viewer. Default values are shown in **bold**. Parameters that include "Target" in their name accept reserved target names. See the Reserved Target Window Names table following the Parameter table.

Parameter	Description
StatusBar	Specifies whether to display the status bar. [On Off]
ToolBar	Specifies whether to display the toolbar. [On Big Off]
LayersViewWidth	Specifies the width of the map layer legend in pixels. A value of zero completely hides the map layer legend. Default: 150
Lat	Latitude of the center of the area to display. Specify the value in decimal degrees. You must use a period (.) as the delimiter, for example, "25.333333". This parameter works only when used with the Lon and Scale parameters, or with Lon, Width, and Units.
Lon	Longitude of the center of the area to display. Specify the value in decimal degrees. You must use a period (.) as the delimiter, for example, "-45.888888". This parameter works only when used with the Lat and Scale parameters, or with Lat, Width, and Units.
Width	The width of the area displayed in Autodesk MapGuide Viewer using the units defined by the Units parameter. This parameter only works when used with the Lat, Lon, and Units parameters.
Scale	Scale of the initial display, either a real or integer value. This parameter works only when used with the Lat and Lon parameters. If not specified, a scale that displays the entire map within the map window is selected automatically. This setting overrides the Width parameter, if specified.
Units	Units used to specify the width. This parameter works only when used with the Lat, Lon, and Width parameters. [MI KM M FT]
Selobjs	Specifies a list of map features to select after Autodesk MapGuide Viewer is loaded and has displayed the map. The map features are identified by specifying the name of the layer that they are on, followed by their keys. Syntax: Selobjs=<MapLayer>,<Key_1>,...,<Key_N> See examples below.

DefaultTarget	Specifies the name of the target window where Autodesk MapGuide Viewer will display HTML documents, as well as URLs referenced in the OpenUrl and OpenMap actions. These actions can be defined when customizing the popup menu in Autodesk MapGuide Author. Default: _blank
ObjectLinkTarget	Specifies the name of the target window where Autodesk MapGuide Viewer will display the URL associated with a map feature. Default: ObjectLink
ReportTarget	Specifies the name of the target window where Autodesk MapGuide Viewer will display reports returned from the View > Report popup menu command. Default: Report
ErrorTarget	Specifies the name of the target window where Autodesk MapGuide Viewer will display error messages. Default: Error
URLList	Specifies whether Autodesk MapGuide Viewer should generate an HTML document that lists the names and links of the selected map features. The HTML document is displayed in the URLListTarget window whenever the user selects map features that have URLs associated with them. [On Off]
URLListTarget	Specifies the name of the target window where Autodesk MapGuide Viewer will display its URLList. Default: ObjectLink
AutoLinkLayers	Specifies the name of a map layer that automatically displays map feature URL link information in the AutoLinkTarget window. The URLs are displayed in the AutoLinkTarget window.
AutoLinkTarget	Specifies the name of the target window where Autodesk MapGuide Viewer will display the URLs downloaded from the AutoLinkLayers. Default: ObjectLink
AutoLinkDelay	Specifies the number of seconds before the next URL associated with a map feature from an AutoLinkLayer will be displayed in the AutoLinkTarget window. Default value is 20. If 0 seconds is specified as the delay, the automatic timed update feature will be disabled, and the AutoLinkTarget window will be updated when the mouse passes over a map feature on an AutoLinkLayer.

Reserved Target Window Names

All of the target option parameters also accept the following reserved target window names:

Target Name Description

_blank	Loads the link into a new blank browser window. The window has no name.
_parent	Loads the link into the immediate parent of the window in which the link was clicked.
_self	Loads the link into the same window as the one in which the link was clicked.
_top	Loads the link into the full body of the window in which the link was clicked.

Examples

The following examples show map URLs with parameters added to them.

- http://www.mapguide.com/maps/usa.mwf?Selobjs=States,CA,TX&ext=.mwf
- http://www.mapguide.com/maps/world.mwf?Lat=50.0&Lon=43.1&Width=10000&Units=mi&ext=.mwf
- http://www.mapguide.com/maps/usa.mwf?Lat=39.86&Lon=-106.76&Scale=6000000.00&ext=.mwf

- http://www.mapguide.com/amap.mwf?StatusBar=On&URLList=On&LayersViewWidth=0&DefaultTarget=MAINAREA &LAT=-110.0&Lon=43.1&Width=100&Units=mi&ext=.mwf
- http://www.mapguide.com/amap.mwf?StatusBar=On&URLList=On&AutoLinkLayers=Billboards&LayersViewWidth=1&&DefaultTarget=MAINAREA&URLListTarget=WEBSITES&AutoLinkTarget=BILLBOARD&AutoLinkDelay=10&LAT=-110.0 &Lon=43.1&Width=100&Units=mi&ext=.mwf

Downloading and Installing the Autodesk MapGuide ActiveX Control Automatically

When Web page authors add maps to their Web pages, they can also set up the pages so that the Autodesk MapGuide ActiveX Control is automatically downloaded and installed on your machine when you access those Web pages. If you use Microsoft Internet Explorer 5.x, the ActiveX Control will be installed in a folder named *Downloaded Program Files* under the *Windows* or *Winnt* folder.

Removing the Autodesk MapGuide ActiveX Control

Microsoft Internet Explorer 5.x provides an automated method for removing the Autodesk MapGuide ActiveX Control.

To remove the Autodesk MapGuide ActiveX Control

1. Use Windows Explorer to navigate to the *Downloaded Program Files* folder.
2. Click the *Autodesk MapGuide ActiveX Control* item in the folder, and then right-click and choose Remove from the popup menu.

This deletes the file and removes it from your Windows Registry.

Updating the Autodesk MapGuide ActiveX Control

If you are using Microsoft Internet Explorer 5.x, you can automatically update the Autodesk MapGuide ActiveX Control.

To update the Autodesk MapGuide ActiveX Control

- In Windows Explorer, click the ActiveX Control, and then right-click and choose Update from the popup menu. The program then checks the site from which you downloaded the ActiveX Control to see if there is a later version. If there is, it downloads and installs it.

Customizing Autodesk MapGuide Viewer

Autodesk MapGuide Viewer exposes an API that allows you to develop highly specialized applications that can display and query maps for use on an intranet or the Internet. You can use JScript or VBScript to develop applications for Microsoft Internet Explorer, or use Java and JavaScript to develop applications for Netscape Navigator.

The documentation for the API, *Autodesk MapGuide Viewer API Help*, provides all of the information you need to begin developing applications. It describes the different features, methods, properties, and events in the API and includes several sample applications that you can use to get a quick start.

Reference

Toolbar Button Summary

The following table shows each of the buttons on the toolbar, their accompanying popup menu commands, and a description of each. Note that some of these buttons may not appear if the map author removed the corresponding commands from the popup menu.

Button	Command	Description
	Copy > Copy	Copies the current map view to the Clipboard (not available in the Java Edition).
	Select	Selects a feature in the map.
	Pan	Moves the map around to display areas that are outside of the current view.
	Zoom > Zoom	Zooms in by a magnification factor of two on the point that you click, or zoom in to the rectangular area you draw with the mouse.
	Zoom > ZoomOut	Zooms out by a magnification factor of two from the point you click to display a larger area of the map.
	Zoom > Zoom Previous	Returns to the previous zoom magnification and location.
	Zoom > Zoom Goto	Zooms to a specified location or US street address.
	Zoom > Unzoom	Zooms out to display the entire map.
	View > View Reports	Generates a report for the selected map features.
	Stop	Stops or interrupts the map display from updating and dynamic map layers from downloading.
	Help > Help Contents	Opens the online Help to get information about viewing maps. If you do not have the Help installed on your computer, it will be opened from the Autodesk MapGuide Web site.

Popup Menu Command Summary

The following table describes the commands that may appear in the popup menu when you right-click in the map window. You may not always see all of these commands, or you may notice some custom commands not in this list; which popup menu commands appear depends on how the map author created the map.

Underlined commands (links) in the table are linked to a help topic that provides more information about using that command. Click the link to view the associated topic.

Command	Description
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Pan	Moves the map around to display areas that are outside of the current view.
Reload	Reloads the current map at the current zoom scale.
Print > Page Setup	Displays the Page Setup dialog box, where you can specify settings for printing the map.
Print > Print	Prints the map.
Copy > Copy	Copies the current map view to the Clipboard (not available in the Java Edition).
Copy > Copy As URL	Copies the current map location to the Clipboard as a URL.
Zoom > Zoom	Zooms in by a magnification factor of two on the point that you click, or zoom in to the rectangular area you draw with the mouse.
Zoom > Zoom Goto	Displays the Zoom Goto dialog box, where you specify the location or US street address you want to zoom to. The author of the map specifies the types of locations, so the types of locations in this dialog box vary.
Zoom > Zoom Width	Displays the Zoom Width dialog box, where you specify the width, in current units, of the area that you want to display in the map window.
Zoom > Zoom Scale	Displays the Zoom Scale dialog box, where you specify the scale at which you want to view the map.
Zoom > Zoom Selected	Zooms to display all of the selected features.
Zoom > Zoom Previous	Zooms to the previous zoom magnification and location.
Zoom > Zoom Out	Zooms out by a magnification factor of two from the point you click to display a larger area of the map.
Zoom > Unzoom	Zooms out to display the entire map.
Bookmarks > Add Bookmark	Displays the Add Bookmark dialog box, where you can specify a bookmark name for the current map view and save it as a bookmark.
Bookmarks > Delete Bookmarks	Displays the Delete Bookmarks dialog box, where you can choose a bookmark to delete.
Bookmarks > (bookmark name)	Adjusts the map view to display the area that was saved under this bookmark name.
Select > Select	Turns on Selection mode so that you can select one or more features in a map.
Select > Select Map Features	Displays the Select Map Features dialog box, where you select from a list of the map features.
Select > Select Radius	Selects the map features that fall within a circle with the radius you specify from a specific point.
Select > Select Polygon	Selects the map features that fall within a polygon you draw.
Select > Select Within	Selects the map features that fall within the selected map features.

Select > Select Clear	Clears the currently selected map features. You can also press ESC to clear the selection. Note that pressing ESC does not work if you are using the Java Edition of the Viewer on an Apple Macintosh computer.
View > View Reports	Generates a report for the selected map features.
View > View Buffer	Creates buffers around the selected map features.
View > View Distance	Displays the distance between two points, as well as the cumulative distance of all measurements made.
Help > Preferences	Displays the Preferences dialog box, where you can specify the map units, selection mode, and status bar settings.
Help > Help Contents	Displays the Autodesk MapGuide Help or the Help created by the author of the map. If you do not have the Help installed on your computer, it will be opened from the Autodesk MapGuide Web site.
Help > About	Displays information about your version of Autodesk MapGuide Viewer.
Stop	Stops or interrupts the map display from updating and dynamic map layers from downloading. This command is available in the Map Window popup menu if you right-click in the map while the map is loading.
Continue	Continues updating the map display and downloading dynamic map layers. This command is available in the Map Window popup menu if you right-click in the map while the map is loading.

The following table describes the commands that appear in the popup menu when you right-click a layer or a layer group in the legend:

Command	Description
Rebuild	Rebuilds the selected layer or all the layers in a layer group.
Expand (layer)	Displays all of the styles for that layer.
Expand (layer group)	Displays the list of layers in the layer group.
Collapse (layer)	If a map layer listed in the legend shows all of the layer styles, collapses the list to show only the layer names.
Collapse (layer group)	Collapses the list of layers in the layer group, displaying only the layer group name.
Expand Theme	Displays the names of the theme categories for the layer. This command is available only when a single layer is selected.
Collapse Theme	Hides the list of theme categories for the layer. This command is available only when a single layer is selected.
Turn On All Layers	Available only for layer groups, turns on all the layers in a layer group.
Turn Off All Layers	Available only for layer groups, turns off all the layers in a layer group.

Release Notes

Known Issues

The following general notes include known problems or issues with using Autodesk MapGuide Viewer Release 6:

- Transparent portions of bitmap symbols don't print properly on PostScript printers
- Selected polygons print in white on PostScript printers
- Dashed lines print as solid lines
- Displaying selected features under raster layers
- VBA not supported in Release 6
- Problems with HP LaserJet printers
- Printing problems with PCL printer drivers
- Viewing a report for multiple features
- Error message "Missing parameter 'ITEM'"
- Web browser window displaying behind other windows
- Map scale rounded up or down
- Legend width in Plug-In and Java Viewer
- ActiveX Control cannot open reports whose names contain double quotation Marks
- Issues with Microsoft Internet Explorer
- Issues with Netscape Navigator
- Issues with the Java Edition of the Viewer

Transparent Portions of Bitmap Symbols Don't Print Properly on PostScript Printers

Print to a non-PostScript printer or install a driver for your PostScript printer that supports Hewlett-Packard Graphics Language (HPGL) or Printer Control Language (PCL). For example, if your printer is currently configured with an HP LaserJet 4M printer driver, choose Start > Settings > Control Panel > Printers and add a second printer that uses the HP LaserJet 5L PCL driver.

Selected Polygons Print in White on PostScript Printers

If you select polygons using the Autodesk MapGuide Viewer ActiveX Control or Plug-In, and then print to a PostScript printer, the selected polygon always prints with a white fill. To solve this problem, try using a different printer driver (such as PCL driver), or print to a non-PostScript printer.

Dashed Lines Print as Solid Lines

Some Hewlett Packard printers, such as the 5N model, print dashed lines as solid lines. To fix this problem, try any of the following:

- Check if there are printer settings you can change to adjust dithering behavior.
- Install a newer printer driver.
- Print to a color printer or a different type of one-color printer.

Displaying Selected Features Under Raster Layers

If your graphics card supports only 256 colors or less, features selected under a raster layer may not be highlighted correctly.

VBA Not Supported in Release 6

Please note that VBA is not supported in Release 6 of Autodesk MapGuide, and using the ActiveX Control with VBA may result in erratic behavior.

Problems with HP LaserJet Printers

Some HP LaserJet printers require a specific Properties specification to support the ghosting feature. If you have trouble using this feature on your LaserJet, go to the Printer Properties screen (click the Properties button in any standard Print dialog box), click the Graphics tab, and then select Use Raster Graphics instead of Use Vector Graphics.

Note The Graphics tab may not be available depending on your access rights to it.

If you get a "Print Overrun Error" message on your printer, increase the Printer memory. (This setting is also in the Printer Properties dialog box.)

Printing Problems with PCL Printer Drivers

When printing a map from Autodesk MapGuide Viewer, some of the text labels and line breaks that are near the edge of the map may print outside of the map boundary and may not clip properly. Also, text may overprint other features in the map. These problems happen only on LaserJet printers that are using older Win95/WinNT PCL printer drivers.

Viewing a Report for Multiple Features

For each Web site and CGI gateway, there is a limit to the number of features that can be processed. If the CGI gateway does not process all selected features (that is, you failed to receive the report you requested for all selected features), you have selected too many features for the present Web site and gateway to handle.

To remedy this problem, select fewer features, and then run the report again.

Error Message "Missing parameter 'ITEM'"

If you receive this error message, the Autodesk MapGuide Server that provides the data for the map you are viewing is probably using a slow print connection. To remedy this problem, please inform the server administrator that you have received this error message and that Autodesk MapGuide Server needs to be reconfigured to use the NSAPI or ISAPI version of the map agent.

Web Browser Window Displaying Behind Other Windows

When Autodesk MapGuide Viewer asks your Web browser to display a URL in a window, it has little control over how the window is displayed. When a map is loaded, the Web browser window is sometimes displayed behind other windows, rather than in front as you would expect. This often happens when you minimize a window. This problem also occurs when Autodesk MapGuide displays an error message, because error messages display in a separate window.

To remedy this problem, close all other browser windows. If no additional browser windows are open when Autodesk MapGuide Viewer creates a new window, the new window automatically appears in front of any other program and document windows that are open.

Map Scale Rounded Up or Down

If are using a very small-scale map (such as 1:1,000,000), you may notice that the scale is not precisely what you specified. With very small-scale maps, Autodesk MapGuide Viewer sometimes rounds the scale to a higher or lower value.

Legend Width in Plug-In and Java Viewer

The legend width of the ActiveX control Viewer can be controlled from the API by using an existing property. The Plug-In and Java Edition do not have corresponding methods to change the Legend Width, so the Viewer legend width cannot be set for the Plug-In and Java Edition from the API. You can, however, use the LAYERSVIEWWIDTH URL parameter to set the legend width for the Plug-In and Java Edition Viewers.

ActiveX Control Cannot Open Reports Whose Names Contain Double Quotation Marks

If you are using the ActiveX Control Viewer, you will not be able to open reports whose names contain double quotation marks, for example "Server Report." You can, however, open reports whose names contain single quotation marks, for example 'Server Report.' Contact the author of the map if you have trouble opening reports.

Issues with Microsoft Internet Explorer

The following notes relate specifically to using Microsoft Internet Explorer.

Setting High Security Disables the Viewer

With Microsoft Internet Explorer 5.x, if you set security to High, you will not be able to view maps.

To remedy this problem, in Microsoft Internet Explorer, choose View > Internet Options, and then set security to Medium.

Help Files Not Uninstalled

If you install multiple copies of Autodesk MapGuide Viewer ActiveX Control in different locations, and you uninstall one of the copies, the \help directory and all of its files for that copy are not uninstalled. To remove these files, you must delete them manually.

Printing Problem

If you try to print using Microsoft Internet Explorer's File > Print command, a blank space will appear on the printed page where the Autodesk MapGuide Viewer ActiveX Control resides.

To remedy this problem, use the Print > Print command (if available) from the popup menu in Autodesk MapGuide Viewer.

Print Preview Does Not Work

The Microsoft Internet Explorer 5.5 Print Preview command does not work with Autodesk MapGuide Viewer.

Stopping Microsoft Internet Explorer

If you click the Stop button on the Microsoft Internet Explorer toolbar while the Autodesk MapGuide Viewer ActiveX Control is downloading map data, the download process will terminate. However, the ActiveX Control will continue to display the hourglass cursor. To remedy this, click the Stop button on the ActiveX Control toolbar to restore the normal cursor.

Browsing to an MWF Not Supported

With Microsoft Internet Explorer 5.x, if you enter the path name of a map window file (MWF) in the address field (such as *c:\maps\tutorial.mwf*), or if you browse to it, the browser will not display the map. To work around this limitation, embed the MWF file in an HTML page, or add a link to the MWF file from an HTML page.

Issues with Netscape Navigator

The following notes relate specifically to using Netscape Navigator.

Problems Using True Color Mode

If you are running Windows NT 4 with Service Pack 3, and you are using Netscape Navigator 4.03 or 4.04 as your browser, you should not use True Color mode as your display color palette, as it can cause intermittent problems using Autodesk MapGuide Viewer. Instead, in Display Settings in the Control Panel, change your color palette mode to 65536 or any setting other than True Color mode.

Issues with the Java Edition of the Viewer

The following notes relate specifically to using the Java Edition of the Viewer.

Problems Using Microsoft Internet Explorer 5.x with Mac OS

The Java Edition of the Viewer does not run if you are using Microsoft Internet Explorer 5.x with Mac OS Runtime for Java (MRJ) 2.2. You need to upgrade to MRJ 2.2.4 or later.

Problems Printing Zoomed Maps

If you zoom in on a map and then print the map, the printed map will appear as if you had not zoomed in.

Cursor Stays in Busy State (Hourglass)

Using certain commands such as Zoom Goto in the Java Edition can cause the cursor to go into a perpetual busy state, displaying an hourglass when the cursor is over the map window. To remedy this problem, click the Select button on the toolbar.

Java Viewer and Internet Explorer

If you are using the Java Edition of Autodesk MapGuide Viewer with Internet Explorer and you click outside any Autodesk MapGuide Viewer dialog box, the dialog box will go behind the Internet Explorer window.

Map Does Not Load in Java Edition in IE 5.x

When using Microsoft Internet Explorer 5.x, you might have trouble loading maps in the Java Edition of Autodesk MapGuide Viewer. This can happen when your Web page uses percentages instead of fixed width and height values to display the Java Edition Viewer. You can prevent this problem by not using percentages. If you decide to use percentages and the problem does occur, try the following procedure until the problem is remedied:

1. Click the Refresh button to reload the map.
2. Press the Shift key while clicking the Refresh button to reload the page.
3. Clear the browser's cache, and then reenter the URL to load the page again.
4. Restart the computer.
5. Uninstall and reinstall the Java Edition Viewer, restarting the computer if necessary.

Additionally, you should always wait for the map to load completely before exiting the browser, as this can cause the application to fail.

Limited Cursors

Unlike the Plug-In and ActiveX Control, the Java Edition Viewer does not display different cursors for many operations. The Java Edition Viewer uses only a selection cursor, a pan cursor, and a general cursor for all other operations.

Regional Settings Not Recognized

The Java Edition Viewer does not recognize changes you make using the Regional Settings Properties Control Panel. For example, if you change the date format or the decimal symbol, the Java Edition Viewer will not use the new settings.

Refreshing Map from Browser Redraws Map at Current Scale

If you zoom in on a map and then use the browser's Refresh or Reload command, the map is redrawn at the current scale rather than returning to the original scale.

Error Messages Stay on Screen after Closing Browser

If you receive an error message while using the Java Edition Viewer, be sure to close the error message before closing the browser. Although you can close the error message after closing an Internet Explorer browser, you cannot close the error message after closing a Netscape browser. If you inadvertently close a Netscape browser while an error message is on the screen, you will need to press CTRL+ALT+DEL and end the task.

Printing Page Settings Are Not Saved

When you set page setup options (such as changing the page orientation from Portrait to Landscape) and print a map in the Java Edition Viewer, the Page Setup options will be reset to their default state the next time you print the map. To print the map again with the same settings, you will need to specify the settings again before printing.

Printing Using Browser's Print Command Does Not Work Properly

If you use your browser's Print command in the Java Edition Viewer, you may get a blurry or blank printout. To avoid this problem, always use the Print command in the Viewer popup menu.

Printing Problems from Netscape 4.x

When printing polypolygons from Netscape 4.x using the Print command in the Java Edition Viewer popup menu, you may find connecting lines between the polypolygons on the printout. To avoid this problem, use a different browser.

Layer Names Truncated When Printing from Mac OS

If you print using the Java Edition Viewer from a Macintosh OS computer, you may notice that legend labels are cut off in the printed map.

Java Viewer Reports

The API call to View Reports does not work on the MacOS/MRJ 2.2 platform, but does work for the View Reports button and popup menu. Unlike Netscape and IE on the Windows platform, Apple's MRJ virtual machine uses the standard JDK 1.1 applet security mechanism. Unless the applet is signed or put into the Java Runtime library directory, the applet will run inside a sandbox and will not have access to the local file system. For more information, see Apple's MRJ Technotes TN 1175: Applet signing with MRJ and JavaKey.

Duplicate Commands Appear in Popup Menu

If you are using the Java Edition Viewer with Microsoft Internet Explorer, you may notice the same commands appearing multiple times in the popup menu. If this happens, you may need to update your version of the Java Virtual Machine. Following are the versions of the Java Virtual Machine that are required for Internet Explorer:

Internet Explorer Version Java Virtual Machine Build

Internet Explorer 5 Build 3193

Internet Explorer 5.01 Build 3240

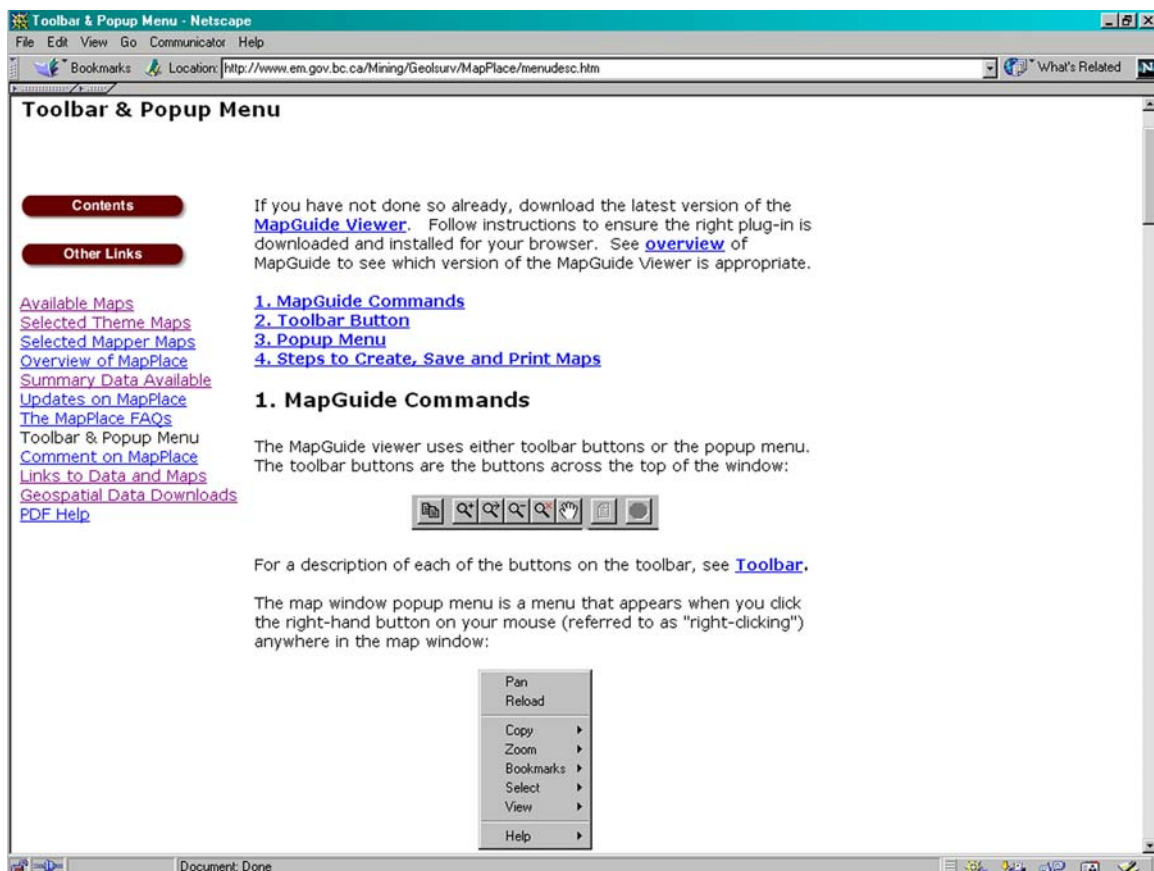
You can download the Java Virtual Machine builds from the Microsoft Web site.

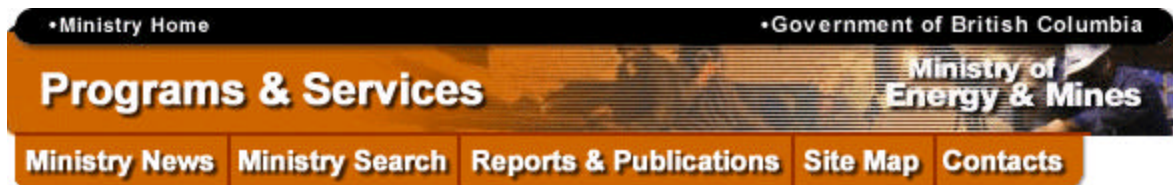
Revised: September 19, 2001

Appendix 2

The MapPlace Toolbar and Popup Menu

<http://www.em.gov.bc.ca/Mining/Geolsurv/MapPlace/menudesc.htm>





Toolbar & Popup Menu

Contents

If you have not done so already, download the latest version of the [MapGuide Viewer](#). Follow instructions to ensure the right Viewer is downloaded and installed for your browser. See [overview](#) of MapGuide to see which version of the MapGuide Viewer is appropriate.

Other Links

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[Toolbar & Popup Menu](#)
[Summary Data Available](#)
[Exploring the MapPlace](#)
[Tour of the MapPlace](#)
[The MapPlace FAQs](#)
[Comment on MapPlace](#)
[PDF Help](#)

- [1. MapGuide Commands](#)
- [2. Toolbar Buttons](#)
- [3. PopUp Menu Summary](#)
- [4. Steps to Create, Save and Print Maps](#)

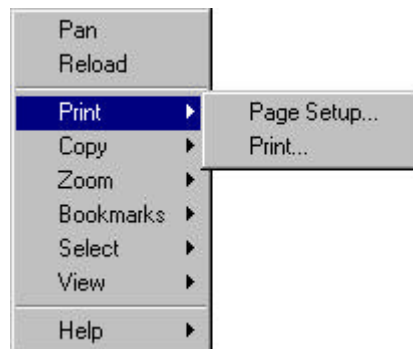
1. MapGuide Commands

The MapGuide viewer uses either toolbar buttons or the popup menu. The toolbar buttons are the buttons across the top of the window:



For a description of each of the buttons on the toolbar, **click on the toolbar button or see the [Toolbar Button](#) summary below.**

The map window popup menu is a menu that appears when you click the right-hand button on your mouse (referred to as "right-clicking") anywhere in the map window. After you right-click to display the popup menu, you can click on one of the items in the menu to choose that command. Those commands that have a right arrow next to them (such as Copy) display a secondary popup menu when you click on them:



See [3. PopUp Menu Summary](#)



2. Toolbar Buttons

Click on the Command for more details. When the buttons are selected they stick; you can use the ESC key to get back to the Select button.

Button	Command	Description
	Copy	Copy the current map view to the clipboard.
	Select	Select a feature in the map
	Pan	Move the map around to display areas that are outside of the current view
	Zoom	Zoom in by a magnification factor of two on the point that you click, or zoom in to the rectangular area you draw with the mouse (click, drag and release the left mouse button).
	Zoom Out	Zoom out by a magnification factor of two from the point you click to display a larger area of the map.
	Zoom Previous	Return to the previous zoom magnification and location.
	Zoom GoTo	Zoom to a specified location. Select a Category, fill in the Location and Zoom to width.
	UnZoom	Zoom out to display the entire map
	View Reports	Generate reports associated with the selected map objects.
	Stop	Stop or interrupt the map display from updating and dynamic map layers from downloading.
	Help Contents	Opens the online Help to get information about viewing maps. If you do not have the Help installed on your computer, it will be opened from the Autodesk MapGuide Web site
Collapse Layers Expand Layers		These are custom buttons to Collapse or Expand all layers. You can also double click the layer or group label to expand and collapse individual layers or groups.
MapPlace Home BCGS Home		These buttons will leave the Map and return to either the MapPlace or the Geological Survey Branch home page.



3. PopUp Menu Summary

The following table describes the commands that might appear in the map window PopUp Menu when you right-click in the map window.

Command	Sub-Menu	Description
Pan		Move the map around to display areas that are outside of the current view
Reload		Reload the current map at the current zoom scale.
Print	Page Setup	Display the Page Setup dialog box, where you can specify settings for printing the map.
	Print	Print the map.
Copy	Copy	Copy the current map view to the clipboard.
	Copy as Bookmark or URL	Copy the current map location to the clipboard as a URL.
Zoom	Zoom	Zoom in by a magnification factor of two on the point that you click, or zoom in to the rectangular area you draw with the mouse
	Zoom Goto	Display the Zoom Goto dialog box, where you specify the location to zoom to. The types of locations you can specify in this dialog box vary depending on the way the map was authored. Use % as a wildcard.
	Zoom Width	Display the Zoom Width dialog box, where you specify the width, in current units, of the area that you want to display in the map window.
	Zoom Scale	Display the Zoom Scale dialog box, where you specify

		the scale at which you want to view the map.
	Zoom Selected	Zoom to display all of the selected objects.
	Zoom Previous	Zoom to the area that was last displayed.
	Zoom Out	Zoom out by a magnification factor of two from the point you click to display a larger area of the map
	UnZoom	Zoom out to display the entire map
Bookmarks	Add Bookmarks	Display the Add Bookmark dialog box, where you specify a bookmark name under which you want to save the current view.
	Delete Bookmarks	Display the Delete Bookmark dialog box, where you can choose a bookmark to delete.
	(Bookmark Name)	Adjust the map view to display the area that was saved under this bookmark name.
Select	Select Map Objects	Display the Select Map Objects dialog box, where you select from a list of the map objects that are within the current map view.
	Select Radius	Select the map features that fall within a circle with the radius you specify from a specific point
	Select Polygon	Select the map objects that fall within a polygon you draw.
	Select Within	Select the map objects that fall within the specified map objects.
	Select Clear	Clear the currently selected map objects. You can also press ESC to clear the selection.
View	View Buffer	Create buffers around the selected map objects to view the objects that fall within a certain distance from the selected objects .
	View Distance	Display the distance between two points, as well as the cumulative distance of all measurements made.
	View Reports	Generate reports associated with the selected map objects.
Help	Help About	Display information about your version of the Autodesk MapGuide Viewer.
	Help Contents	Display the Autodesk MapGuide Help or the Help created by the author of the map. If you do not have the Help installed on your computer, it will be opened from the Autodesk MapGuide Web site .
	Preferences	Display the preferences dialog box, where you can specify the map units, selection mode, and status bar settings.
Stop		Stop or interrupt the map display from updating and dynamic map layers from downloading. This command is available in the Map Window popup menu if you right-click in the map while the map is loading
Continue		Continue updating the map display and downloading dynamic map layers. This command is available in the Map Window popup menu if you right-click in the map while the map is loading
Following are the commands that appear in the legend popup menu when you right-click in the legend:		
Command		Description
Rebuild		Rebuild the selected layer or all the layers in a layer group.
Expand (layer)		If a map layer listed in the legend does not show all of the types of objects in that layer, this command expands the list.
Expand (layer group)		Display the list of layers in the layer group
Collapse (layer)		If a map layer listed in the legend shows all of the types of objects in the map layer, this command collapses the list to just the name of the layer.
Collapse (layer group)		Collapse the list of layers in the layer group, displaying only the layer group name.
		You can also double click the layer or group label to expand and collapse the layer or group.
Turn On All Layers		Available only for layer groups; turn on all the layers in

	a layer group
Turn Off All Layers	Available only for layer groups; turn off



4. Steps to Create, Save and Print Maps

[4.1 Select a Map Area for Viewing](#)

[4.2 Copying and Pasting a Map](#)

[4.3 To Save a Map](#)

[4.4 To Print a Map](#)

4.1 Select a Map Area for Viewing

Zoom using  or  into the area you would like to see. This will decrease download time when the theme or themes you want to see are retrieved from their data bases. If you need to ZOOM OUT , turn off the unnecessary layers, so download time will be decreased. Remember: the more you Zoom in, the more themes you will be able to choose from. Watch the legend on the lefthand side to see which areas can be viewed at any given scale. Use the Pan  to move the map around and get the area you want to view, save or print.

4.2 Copying and Pasting Maps

When you copy the map view, it is copied to the Windows clipboard, and you can paste it into another Windows application. Remember to use  button and not the Edit, Copy function from the browser toolbar.

To **copy** and **paste** the map view, do the following:

1. Use the **Zoom** and **Pan** commands to display the map area you are interested in.
2. Right-click, and then choose **COPY > COPY** or .
3. Switch to the application in which you want to paste the map view.
4. Choose **EDIT > PASTE**.

4.3 To Save a Map

You can save documents by using the **Save As** command on the **File** menu. Name the map and click **OK**. The map is saved as a **html** file and can be viewed with your browser by double clicking on the file or opening the file from your browser.

4.4 To Print a Map

Right-click on the map to get the Popup Menu and select **Print**. You can use the Page Setup dialog box to specify settings for printing the map. You can also *print the whole screen to you clipboard* by using your **Print Screen** button on your keyboard.

Note: Do not use the **File, Print** menu or  button on your browser toolbar. You will get a web page with no map.



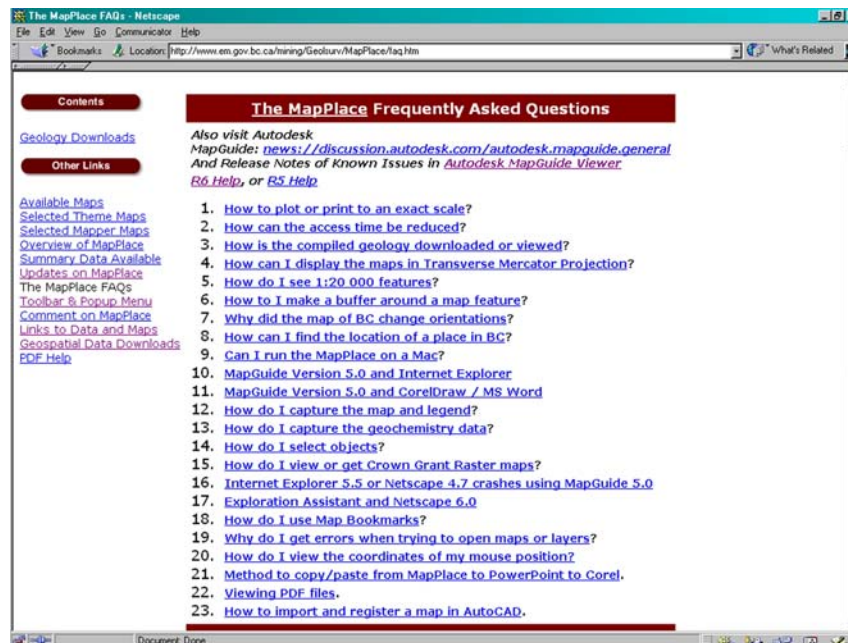
[Return to Online Help & Documents](#)

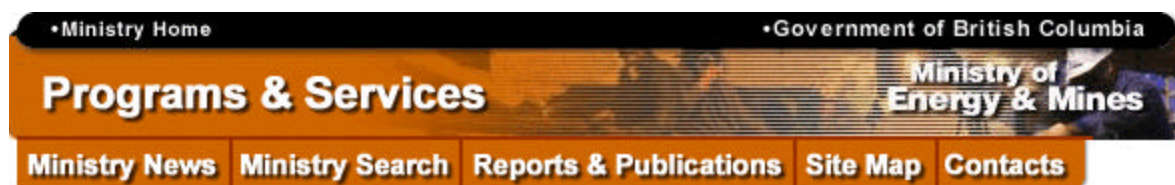
Date page last updated July 29, 2002.

Appendix 3

The MapPlace Frequently Asked Questions

<http://www.em.gov.bc.ca/Mining/Geolsurv/MapPlace/faq.htm>





The MapPlace FAQs

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The MapPlace Frequently Asked Questions

Also visit Autodesk MapGuide:

[news://discussion.autodesk.com/autodesk.mapguide.general](http://discussion.autodesk.com/autodesk.mapguide.general)
 and Release Notes of Known Issues in
[Autodesk MapGuide Viewer R6 Help](#), or [R5 Help](#)

1. [How to plot or print to an exact scale?](#)
2. [How can the access time be reduced?](#)
3. [How is the compiled geology downloaded or viewed?](#)
4. [How can I display the maps in Transverse Mercator Projection?](#)
5. [How do I see 1:20 000 features?](#)
6. [How to I make a buffer around a map feature?](#)
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12. [How do I capture the map and legend?](#)
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16. [Internet Explorer 5.5 or Netscape 4.7 crashes using MapGuide 5.0](#)
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18. [How do I use Map Bookmarks?](#)
19. [Why do I get errors when trying to open maps or layers?](#)
20. [How do I view the coordinates of my mouse position?](#)
21. [Method to copy/paste from MapPlace to PowerPoint to Corel.](#)
22. [Viewing PDF files.](#)
23. [How to import and register a map in AutoCAD.](#)
24. [How do I extract MINFILE data in an area.](#)

1. How to plot or print to an exact scale?

Once the required maps has been obtained and is visible in the map window press the right mouse button when the cursor is over the map to get the Popup Menu. Select the Page Setup feature and enter the desired scale and other features. Press OK. Then select the Print Page option in the Popup Menu. If you are changing output devices select it with the Print Page option before going to the Page Setup area.



2. How can the access time be reduced?

There are a couple of ways to economize your time:

1. If you are going to ZOOM IN to an area, downloading time can be reduced if you select or "turn on" the desired layers after ZOOMING into an area. The same process can be used when deselecting layers.
2. Deselect or "turn off" layers before you ZOOM OUT too far or some very large data sets will be downloaded. You can try using the STOP button if this occurs but this may not work all the time so plan ahead.
3. When selecting more than one layer at a time, downloading time can be reduced by holding down the "CTRL" key and highlighting the Layer Name. Next click the adjacent box of one of the highlighted layers. This turns on all the selected layers. The same process can be used when deselecting layers.



3. How is the compiled geology downloaded or viewed?

The digital geology for the province is available by 1:250 000 mapsheet for all areas except Queen Charlotte Islands. To get this data go the [BCGS GEOLOGY](#) map, activate the top layer (Geology Download_TM Proj.), and double click on the mapsheet desired. The resultant page display will provide access to the digital files in ArcInfo EXPORT (E00) format in either Albers Equal Area Polyconic or Geographic

(decimal degrees) projections. The datum is NAD83. Click on the item you require to download the zipped files. To use the files as shape files they can be translated using the Import71 utility that comes with Arcview. Metadata for the geology of the whole province is also available on this page as a downloadable file ([geolmeta.zip](#)). A [readme file](#) describes the download files.

Digital bedrock geology for each map area is also available for interactive viewing and analysis using the MapGuide Viewer. Select the Interactive View of the map sheet in either projection and the NTS area will be displayed. To view the geology data, zoom into an area of interest and activate the Geology Linework, Geology Layered Rocks and Geology Intrusive Rocks. The Geology Description and Legend can be viewed by selecting features on the map and appropriate report.

For more information on the compiled geology contact see the [GSB Mineral Potential Program](#).



4. How can I display the maps in Transverse Mercator Projection?

To switch from the standard Albers projection to Transverse Mercator projection go to the BCGS Geology map and double click on the mapsheet desired. The top theme "Geology Download & TM Proj." must be active. The resultant page display will provide access to the a map view of that 1:250 000 mapsheet in either Albers or Transverse Mercator Projection. To get UTM coordinate readouts from the cursor position set your Preferences to Map Coordinates. Caution must be exercise in not panning out side of a zone or invalid displays will result. To change zones go back to the BCGS Geology map and pick a mapsheet in the new zone.



5. How do I see 1:20 000 features do not appear when called?

The 1:20 000 features are set to be visible at 1:50K or 1:100K depending on the map. Zoom to that scale and they should appear in the legend. You can then turn on the appropriate layers. The contours are split into two layers; if one doesn't work, try the other.



6. How to I make a buffer around a map feature?

Buffering is available on most MapPlace maps. To make a buffer; 1) select object or series of objects to be buffered, then select VIEW/BUFFERS in the pop-up menu. Complete the dialog box and then the buffer will appear. Buffers can be turned off and on or removed. They will disappear when browser turned off.



7. Why did the map of BC change orientations?

The primary display projection used in MapPlace was changed from the Canadian Albers Equal Area Projection to the standard BC Albers Equal Area Projection.



8. How can I find the location of a place in BC?

The locations of over 40,000 locations in the province are available to help users quickly position themselves. Only communities actually appear on the map but the names of most common geographic features can be used with the ZOOM GOTO option. To use this feature click on the ZOOM GOTO button on the toolbar. In the pick menu select geographic locations. Type in part of the name of the feature you are looking for and enter a map size. All location features containing the string you entered will be returned. Simply pick the feature you wanted and press ok. The map view will now be centered on the feature. Turn on the desired layers to construct the map you want.



9. Can I run the MapPlace on a Mac?

The Autodesk MapGuide Viewer, Java™ Edition (for Microsoft Internet Explorer / MacOS) is downloadable from <http://www.mapguide.com>. Click on Download the Viewer, fill in contact info, select operating system and the last line has the download link.

System requirements for Power Macintosh – Java Edition:

- Mac OS 8.5/9
- Mac OS Runtime for Java 2.2 (download from <http://www.apple.com>)
- 32MB RAM, 10MB free hard disk space (minimum)
- Microsoft Internet Explorer 4.5 (Does not run on IE 5.x)

Instructions are available at:

http://www.mapguide.com/javaedition/en/ie_mac_mri/index.htm
<http://www.mapguide.com/javaedition/en/index.htm> (Java Version for Netscape and IE)

A Java Version of the BCGS Geology map is available for the MacOS;

http://ebony.gov.bc.ca/mapplace/minpot/bcgs_java.cfm.



10. MapGuide Version 5.0 and Internet Explorer

With Microsoft Internet Explorer 4.0 or 5.0, if you set security to High, you will not be able to view maps. To remedy this problem, in Microsoft Internet Explorer, choose View > Internet Options, and then set security to Medium.

Other issues and on-line help for MG 5.0 can be found at:
<http://www.mapguide.com/r5/help/ver5/viewer/en/index.htm>.



11. MapGuide Version 5.0 and CorelDraw / MS Word

With MG 4 Viewer you can copy/paste the map via clipboard (from Windows) into CorelDraw 5, 7, 8 and MS Word. With MG5 Viewer it is not possible to copy/paste into CorelDraw 5, 8 or 9, but it is possible to copy/paste into CorelDraw 7 and MS Word. MG 5 copies to the clipboard as EMF (enhanced metafile), by default. Earlier versions copied as WMF (windows metafile).

Software (e.g. Metafile Companion <http://www.companionsoftware.com/>) is available to translate file formats from EMF to WMF. With this software you can cut/paste from the MapPlace to Metafile Companion to Corel in a two-step process. Objects can also be inserted into Corel (use Edit, Insert New Object, Enhanced Metafile). Metafile Companion handles the vector layers well but not raster.

Success with vector and raster layers can be achieved by printing as a PDF file (see next section on use of Adobe Acrobat) and importing the file to an applications such as Corel.

Copy the map via MS Word: copy the map window to the clipboard; paste it into Word (paste as... enhanced metafile); ungroup the map in Word; copy it into the clipboard; and paste it into Corel using paste as... enhanced metafile.

[See Method to copy/paste from MapPlace to PowerPoint to Corel.](#)



12. How do I capture the map or legend?

To copy the map view, use the Copy Button on the MG tool bar or right-click and choose Copy; do not use the Edit, Copy function from the browser toolbar. Switch to the application in which you want to paste the map view. Choose Edit, then Paste. Successive pastes of different layers will place the data into various layers.

To capture the Legend you need to install Adobe Acrobat. Create your map in MapPlace and print using the Acrobat PDFWriter driver. This will write a PDF file with the legend and map. Use the Text or Graphic Select Tool in Adobe Acrobat to capture the legend or map in the PDF file. It can then be pasted into other applications.



13. How do I capture the geochemistry data?

Use the select tool to select the geochemistry points. View Report Geochem dump to Excel. You may be able to open the file in Excel.

Internet Explorer tries to resolve the dbml.exe as an executable, when in fact it is a text (ASCII) file. When it asks you *What would you like to do with this file? Save this file to disk*, with extension .xls or .txt. Then open the file in Excel or other database program.



14. How do I select objects?

Use the select tool and point and drag over an area to select objects. You can also right click and Select within existing Polygon. MapGuide R5 no longer defaults to the select tool, but sticks with the one last used, such as zoom. Tables, downloads and reports are attached to some objects.

You can double click on some objects (mineral occurrences and mineral titles) and go directly to a report of the object. Double click does not work with Assessment Reports as some have the exact same location. In this case, you must first select the report dot and use reports to view the data.



15. How do I view or get Crown Grant Raster maps?

Select the [Mineral Titles Map](#) (3rd one on Available Maps page). Zoom in to your area of interest, click the Crown Grant Raster Index layer on, use your select tool to double click the resulting grid, which creates the NTS report. The [BCGS Geology Map](#) also has the Crown Grant Raster Index layer.

The report, **Mineral Tenure Raster Map Download**, has links to the *Interactive map with Crown Grant Rasters* or you can *Download Crown Grant Rasters* (TIFF format) and load them into a graphic package.

If viewing the map interactively with the MapPlace, and the image resolution is poor after a zoom, it can be sharpened by right clicking on the Crown Grant Raster Map layer and Rebuilding the layer. If the background is grey, turn off the BC Border layer at the bottom of the legend.



16. Internet Explorer 5.5 or Netscape 4.7 crashes using MapGuide 5.0

You may experience errors and crashes using IE. 5.5 or Netscape 4.7 and MG 5 while printing and turning on layers. IE or Netscape shuts down with an error message similar to this: 'IEXPLORE caused an exception 10H in module MGAXCTRL.DLL at' or 'NETSCAPE caused an exception 10H in module NPMAPV32.DLL at'

In the case of IE, the BCGS Geology, Exploration Assistant and Mineral Titles maps have been updated to access the latest version of the MapGuide ActiveX Control (mgaxctrl.dll). Adjust your bookmarks to use the updated maps on the [Available Maps](#) page.

In the case of IE, it is also possible that a previous version of the MapGuide Viewer (ActiveX control) has not been removed, and the automatic download and installation of the new MapGuide 5 Viewer doesn't proceed. Depending on how the previous version was installed, automatically or manually, it (ActiveX control-mgaxctrl.dll file) must be removed either from Control Panel>Remove/Add Programs, or in c:\windows(orWINNT)\downloaded program files, or in c:\program files\autodesk\mapguide viewer\ . Once the old version is removed, MapPlace (use the BCGS Geology map) will automatically install the current MapGuide Viewer 5.0 SP2 (5.5.1.2), which is also available at: <http://www.mapguide.com/update/R5/Patch/MC5512.exe>.

Another possible workaround is to close all other open browser windows, or close (via Task Manager) and start again. Also consider installing and using Netscape with the Plug-in Version of MapGuide Viewer as an alternate browser/viewer combination. If using Netscape, try using IE as the browser of choice.

Check the Autodesk site (www.mapguide.com) for the latest version of the MapGuide Viewer (R6.0 is now available) and their download FAQs.



17. Exploration Assistant and Netscape 6.0

Exploration Assistant doesn't work with Netscape 6. The full Javascript suite does not appear to be supported. Also our double click links do not work well with Netscape 6. Exploration Assistant works well with previous versions of Netscape.

If you are having problems with the Javascript searches on the Analysis Tool window, we suggest uninstalling and downloading/installing the latest version of MapGuide (also see solution in #16).



18. How do I use Map Bookmarks?

Bookmarks are used to save and return to a view of a defined map area. Right click on the map and choose Bookmark\Add Bookmark. Bookmarks do not save whether layers are turned on or off. The bookmark will take you to the map area, but you have to turn on the various layers. Note that if you are in the map that the bookmark was created and if the layers are already turned on, when you go to a bookmark, those layers will stay on in the new location. Bookmarks are connected to the map they were created in. For example, if you create a bookmark in the Mineral Title map, and later open the BCGS Geology map and use the bookmark, it will take you back to the Mineral Title map.

The Viewer help also describes using URL Parameters to customize map views. Look under Advanced Topics in: <http://www.mapguide.com/help/viewer5/en/index.htm>



19. Why do I get errors when trying to open maps or layers?

Typical errors will be:

HTTP Error 405

or

Autodesk MapGuide Server Error : 5001-...
Unable to connect to data source
For further information please contact

Older maps are likely being used, possibly through outdated browser bookmarks. Please update browser bookmarks with maps linked from the main page of Available Maps (<http://www.em.gov.bc.ca/Mining/Geolsurv/MapPlace/maps.htm>). The older maps will be removed from the site once they are updated. See also note on [map bookmarks](#) above.



20. How do I view the coordinates of my mouse position?

The coordinate position is displayed on the lower left-hand corner of Autodesk MapGuide Viewer. The coordinates displayed will change as you move your mouse over the map. If the coordinate position is **NOT** visible, right-click on your mouse to display the Popup Menu and choose ABOUT > PREFERENCES command, and from the Status Bar select Display mouse position. In PREFERENCES you can also choose the type of coordinate system, either Latitude, Longitude or Mapping Coordinate System. The latter is the UTM location provided you are using the UTM projected maps (see [Section 4](#)).



21. Method to copy /paste from MapPlace to PowerPoint to Corel.

1. Create a map view in MapPlace.
2. Right click on the map and copy the image into the clipboard.
3. Open a blank presentation and blank slide in PowerPoint.
4. Convert the imported picture into a Microsoft Office drawing object. This can be done by Edit Picture Object or right click and select Grouping Ungroup.
5. Select All objects on the image and paste into Corel.



22. Viewing PDF files.

1. See [Help on viewing PDF files](#).



23. How to import and register a map in AutoCAD.

1. Open the BCGS Geology Map and turn on the Geology Download _TM Proj. layer at the top. Double click on the NTS map of interest.
2. In the View or Download Compiled Geology report select Interactive View (Transverse Mercator Projection) of NTS Mapsheet This links to a map in UTM projection.
3. Use zoom tools and layer toggles to create a map. Turn on one of the Grid Layers (e.g. Grid 1:20K) to help in the registration.
4. Open AutoCAD. Go back to the MapPlace and right click on the map and copy the image into the clipboard.
5. Use Edit, Paste Special in AutoCAD and paste as AutoCAD Entities.
6. Return to the MapPlace and record the UTM location of 3 corners of the grid. To display the UTM coordinates in the lower left of the MapPlace, right click on the map and select About, Preferences, Display mouse position with Units Mapping Coordinate System (x,y coordinates). Zoom into the corners of the grid for accuracy; use Zoom Previous button to zoom back.
7. Use AutoCAD commands to register the maps to the grid corners, e.g. align, select objects all, enter, specify 1st source point _int of (shift right click and choose intersection), specify 1st destination point: x,y coordinates, specify 2nd and 3rd source and destination points similarly. This registers the map.
8. In AutoCAD the map can be exploded to edit objects. Layers in the MapPlace can also be systematically pasted into AutoCAD to place them on different layers.



24. How do I extract MINFILE data in an area.

Follow these steps to select mineral occurrences within a polygon, save the MINFILE list, import the file into MINFILE/www and create an Excel file with MINFILE data (e.g. production or inventory data).

1. Choose a map, zoom to the area of interest and turn on a polygon layer such as an LRMP area. Note that some polygons, such as NTS grids, may be outlines. These polygons cannot be selected; a filled polygon must be used.
2. Turn on the MINFILE status layer which will display point data showing location of mineral occurrences.
3. Use the select tool to select the polygon, which will turn to a different colour. Right click on the selected polygon and choose Select, Select within existing Polygon.
4. A Select Within dialog box will appear with a list of available objects. Choose MINFILE status, then OK. This will display selected MINFILE points within the polygon.
5. Right click on the map (or use the View Report button) and choose View, View Reports. Select MINFILE Data Dump or MINFILE Number Dump reports to get a list of the MINFILE number. If Excel is associated with your browser, the MINFILE Data Dump report will open a spreadsheet of data. Otherwise the file will have to be saved as an ASCII file. Either way, copy just the column of MINFILE numbers into Notepad and save the

MINFILE number list as a .txt file.

6. In your browser, open MINFILE/www and select Import Numbers near the bottom of the page. Type in the path and file name or use the Browse button to find the saved .txt file. Click on the Import File button and a tabular report will be created. On the right side of the screen, click on Summary Reports and Downloads, which goes to the bottom of the page. In the row labeled Downloads, select desired link (e.g. Production Data) and Excel will open (or an ASCII file needs to be saved and opened with Excel) with the appropriate data.

 TOP

This page was last updated September 11, 2002.

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Appendix 4 & 5

The MapPlace:

An award winning Internet exploration service for BC

**Using Web-Based Mineral Exploration
Data as an Environmental Tool**

The MapPlace

An award winning Internet exploration service for B.C.

(article from GEOLOG Spring 2001, Vol. 30, Pt. 1)

Don MacIntyre, Larry Jones - B.C. Ministry of Energy and Mines, Geological Survey Branch, Victoria B.C.;
Ward Kilby - Cal Data Ltd. Vancouver B.C.

The B.C. Ministry of Energy and Mines Internet site, the MapPlace, was honoured by the B.C. and Yukon Chamber of Mines at the 2000 Cordilleran Exploration Roundup meeting in Vancouver B.C. The MapPlace, featuring interactive mineral exploration datasets, won the award for providing exceptional, efficient and free access for B.C. explorationists. The award was presented to the creator and innovator Ward Kilby of the B.C. Geological Survey. This paper briefly describes what MapPlace is, how it evolved, how it works and what kind of GIS functionality is available.

What is it?

The MapPlace is an Internet based system that uses the world wide web (WWW) to provide free access to British Columbia mineral exploration information in a dynamic map format. The MapPlace provides interactive map access to most of the British Columbia Ministry of Energy and Mines geospatial data holdings including bedrock geology, surficial geology, metallic and industrial mineral potential ranking, regional silt and water geochemical surveys (RGS), mineral occurrences (MINFILE), assessment reports (ARIS) and mineral title locations that are useful to explorationists and landuse planners alike. These themes can be combined with other georeferenced datasets such as administrative boundaries, topographic features and other related map based information including raster images such as digital elevation model (DEM) shaded relief, satellite (LandSat) and aeromagnetics to produce user-defined map views. These can then be printed or pasted into common graphics packages. In addition, many of the features that can be displayed on MapPlace are linked to supporting database tables thus allowing the discovery, retrieval and reporting of valuable attribute data that is linked to individual map objects. For some themes clicking on an object links to a separate Internet site such as MINFILE or Mineral Titles allowing further search and retrieval capabilities.

How did it evolve?

The MapPlace has been operational for over four years now. Its development is linked to the release of AutoDesk's MapGuide™ software in mid 1997. This product met our requirements for a cost effective and efficient method to display, retrieve and analyze vector and polygon based map information over the Internet. The site capabilities have met all our original requirements for data dissemination and have opened up the realm of online data analysis and distributed data input and maintenance. Use of web-based tools reduced our development costs and allows us to piggyback on evolving Internet tools and expertise.

How does it work?

The MapPlace website was developed around several off-the-shelf software packages. Autodesk's MapGuide™, Allaire's ColdFusion™ and Microsoft's Access™ are the packages used on the site in addition to the normal WWW server software. Databases are used to handle all the tabular information associated with the site. ColdFusion is used as a WWW database manager, report writer and sophisticated WWW toolkit. MapGuide Server, Author and Viewer software provide the map displays, GIS functionality and development environment for this style of web presentation. There are numerous different configurations of software and hardware that could be used to deliver the MapPlace. Figure 1 illustrates our current configuration. Both the MapGuide Server and ColdFusion run as services on Intel based PCs using the NT operating system.

Figure 1 illustrates the distributed nature of the system. Several of the datasets displayed on MapPlace, including the Tectonic Assemblage Map geology, reside on MapGuide servers at Natural Resources Canada. This integration of data from different sources and custodianships is one of the most powerful features of distributed systems.

The only requirement for end users of the MapPlace is that they have a Web browser (e.g. Microsoft Internet Explorer or Netscape) and a free viewer plug-in that can be downloaded from Autodesk. The MapGuide Viewer enables the clients computer to perform many of the display functions independent of any one server. Using toolbar buttons and popup menus to interact with simple or complex maps, you can zoom, pan, zoom out and get custom reports. Object display is controlled by the zoom scale so that increasingly complex map objects are only displayed when the scale is appropriate. Objects on the map may be linked back to the source database on the server or across the Internet. In addition to these links, one can download files and tables. Databases accessible this way include digital geological maps, mineral potential information, mineral occurrences (MINFILE), mineral and petroleum tenure, assessment report indexes (ARIS) and regional geochemical surveys (RGS). Other links will take you to map indexes, Geological Survey of Canada databases, terrain maps and more.

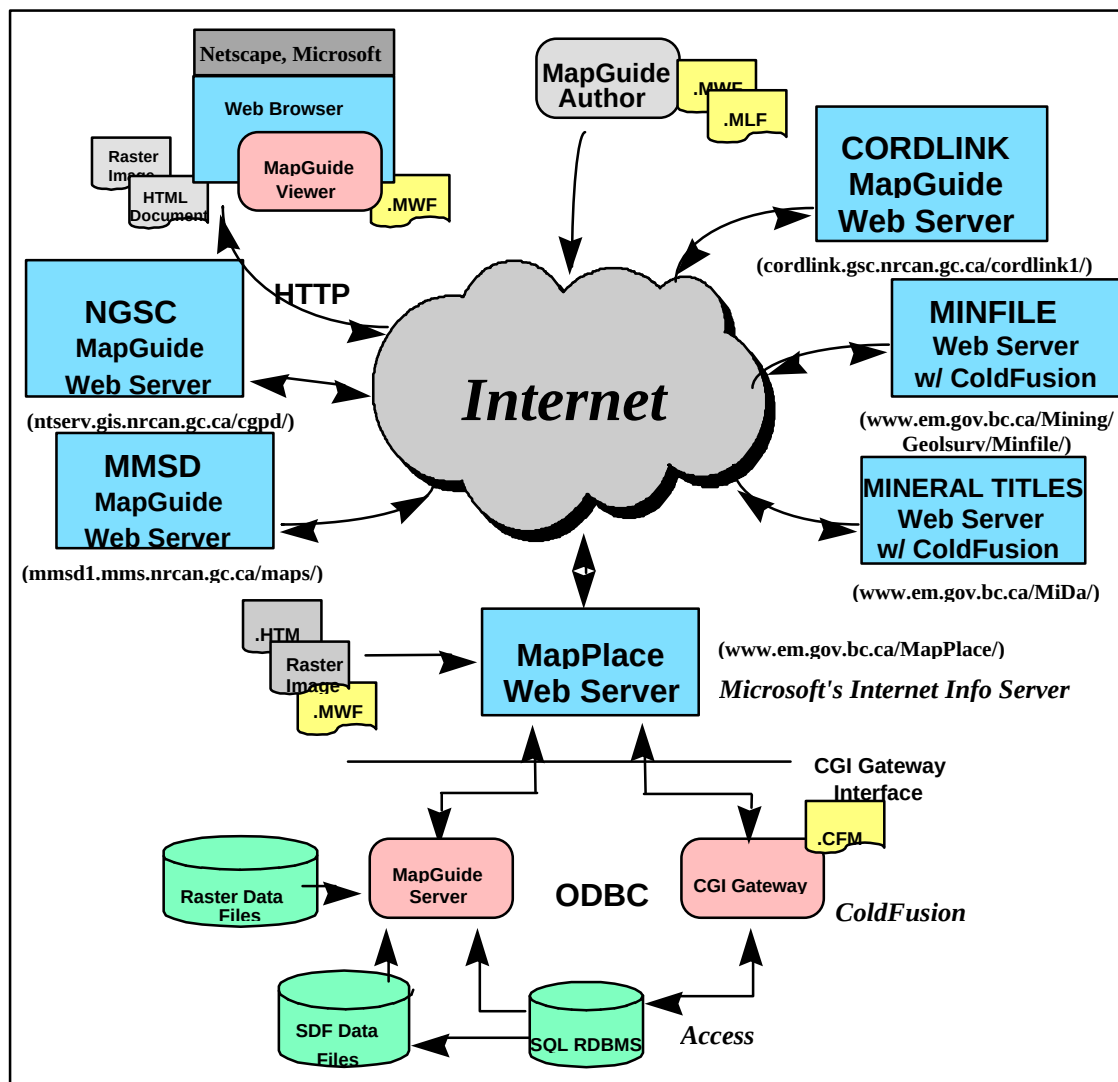


Figure 1. Diagrammatic view of the MapPlace configuration in relation to the Internet, geographic data, attribute databases, other websites and other MapGuide sites.

GIS Functionality

The power of the system is that it provides some near-GIS options, such as buffering around intrusions or faults, retrieving attributes for polygons or points and displaying different sized symbols or polygon fills based on object attributes. With the Mapguide Author software, the user has nearly complete control of how data is displayed thus allowing further customization of the resultant map. Further enhancements can be achieved by embedding the MapGuide window in a web page and accessing the Viewer's API through Javascript or VBscript. The B.C. Mapper application on the MapPlace site is one such application that

allows a user to input their own data on top of existing MapPlace themes by digitizing polygons, points and lines on screen. Another application is the 'Exploration Assistant' which allows the user to specify what features to display in the map window. For example, the user could display all Cretaceous age sedimentary rocks within a terrane, generate a map of mineral claims that may expire (anniversary date) in the next 30 days in any area of interest, or look for prospective areas favourable for VMS type mineral deposits.

Conclusion

The MapPlace has been operational for over four years, providing free Internet access to mineral exploration-related information to the mineral exploration industry, land use planners, government agencies and the general public. It has proven to be an efficient and effective way to disseminate map-based information and its flexibility gives users a powerful tool for building their own custom maps. For more information visit the MapPlace at <http://www.em.gov.bc.ca/MapPlace>.

References

Autodesk, Inc. (1998): "Network-centric GIS: A new application architecture for the Internet paradigm." (<http://www.autodesk.com/solution/gis/whtpaper/wpamg2.exe>).

Kilby, W.E. (1999): THE MapPlace – Web-Based GIS Access to British Columbia Mineral Exploration Information, *In Proceedings of the Thirteenth International Conference Applied Geologic Remote Sensing*, Vol. 1, pages 204 – 212.

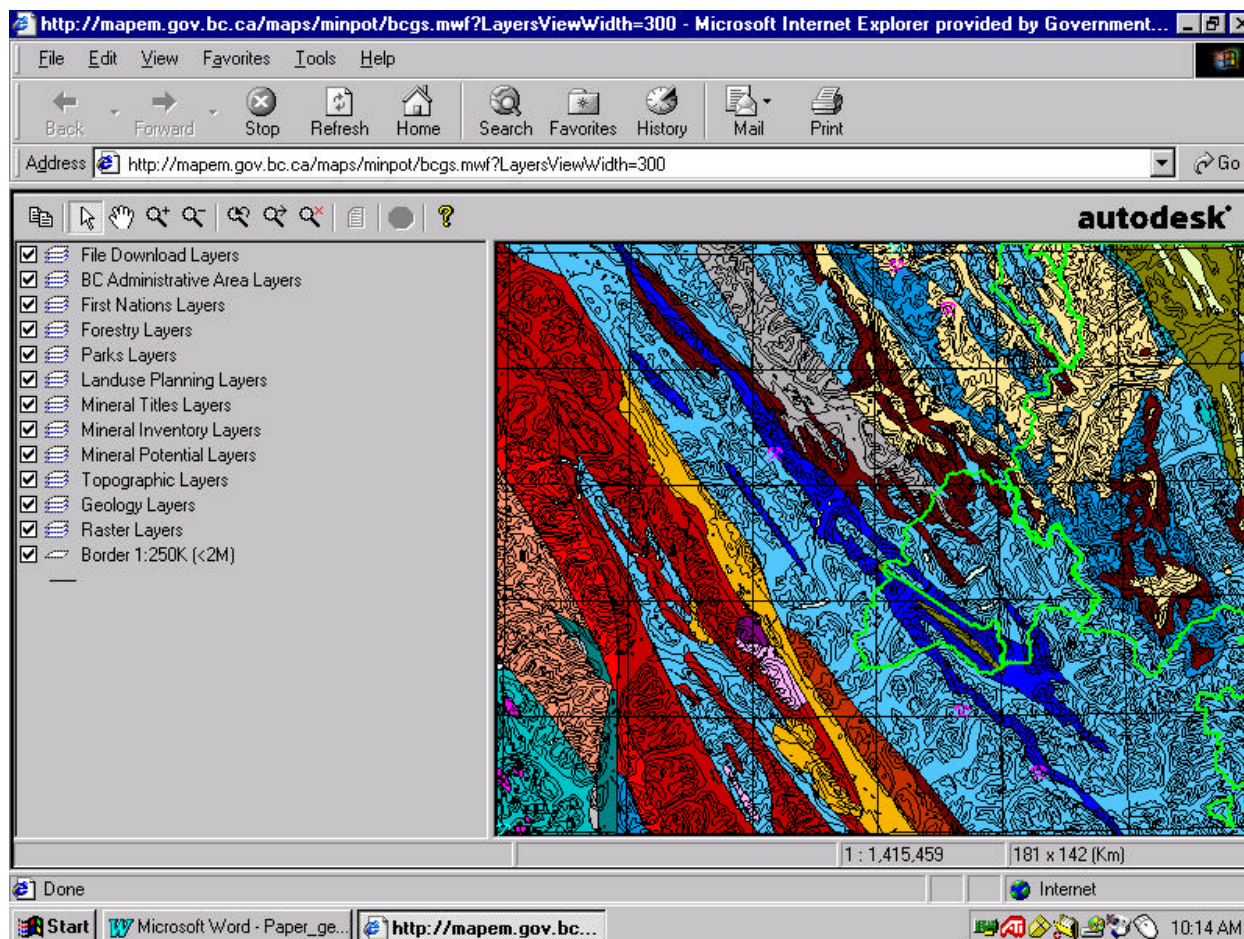


Figure 2. Screen image of a Mapguide window showing the geology and topography of the Rocky Mountains in northeast B.C. Also shown are park boundaries, mineral occurrences and towns. Layer groups (collapsed) are shown in the left hand frame. The top bar has icons for the common zoom and panning tools; the bottom bar shows the scale of the view and the height and width of the view in kilometres.

Table 1. Summary of major datasets accessible through the MapPlace.

Layer Group or Name	Object Type	No. of Objects / Coverage	Date Updated	Reports, Downloads and Links	Visible Scales (M=million, K=thousand)	Sources of Data*
Bedrock Geology (1:5M, 1M, 250K resolution)	Polygon, Line	72,000; 180,570	1994	legend reports	<1M, 2M incremental to 10M	MEM/GSB; NRCan
Geology Map Index	Polygon	298	1998	data report and download	all scales	MEM/GSB
Geology Download	Arcview files (e00)	100% (1:250K maps)	1998	E00 file downloads	all scales	MEM/GSB
Mineral Potential	Polygon	788	1998	data report and download	all scales	MEM/GSB
Aggregate	Point, Polygon	725 pts / Nanaimo, Okanagan, Prince George	monthly	table download	all scales	MEM/GSB
COAL Boreholes	Point	7,765	1990	table download	all scales	MEM/GSB
Mineral Occurrences - MINFILE	Point	12,067	monthly	data reports and downloads; links to MINFILE	all scales	MEM/GSB
Assessment Reports - ARIS	Point	25,800	monthly	data reports and downloads; links to ARIS	all scales	MEM/GSB
Regional Geochemistry - RGS	Point, Polygon	44,428	annually	complete data download	<1M	MEM/GSB
Mineral Tenure	Polygon	127,000	monthly	data report and links to MIDA	<1M	MEM/MTB
Crown Grants	Raster image	100%	periodically	TIFF file downloads	<200K	MEM/MTB
Topography (6M, 2M, 1M, 250K, 50K, 20K resolution; Colour Contours, TRIM Contours, Roads, Rail, Rivers, Lakes, Glaciers, Coast, Bathymetry)	Points, Polygon, Line	very large; 7000 TRIM maps	variable; TRIM 1996	none	variable scales for different resolutions	MELP; NRCan
Geographic Locations (Map Grids, Gazetteer)	Point, Polygon	41,500	1998	none	all scales	MELP
Administration Areas (First Nations, Parks, Forestry, LRMP areas)	Polygon	multiple	variable	none	all scales	MELP, MOF
DEM Shaded Relief	Raster image	100%	1999	none	all scales	MELP; NRCan
LandSat	Raster image	95%	1999	none	all scales	MELP; NRCan
Aeromagnetics	Raster image	85%	2000	none	all scales	NRCan
Gravity	Raster image	100%	1999	none	all scales	NRCan

*Abbreviations: MEM=BC Ministry of Energy and Mines; GSB=Geological Survey Branch; MTB=Mineral Titles Branch; MELP=BC Ministry of Environment, Lands and Parks; MOF=BC Ministry of Forests; NRCan=Natural Resources Canada

The MapPlace

Using Web-Based Mineral Exploration Data as an Environmental Tool

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Reprint from Innovation June 2001, Volume 5, Number 5

Within the realm of environmental services, whether related to contaminated sites remediation or environmental planning, the job of the professional environmental consultant is often a hectic one. Many projects — in particular, preliminary environmental site assessments and investigations (Phase 1 and Phase 2) — are characterized by short time frames and tight budgets. This means that any tool that can potentially be used to save time and money is an asset to both the professional geoscientist or engineer who conducts the work and the client.

One such tool has recently been used to save research time and provide access to a database not generally available in the offices of most large consultancies — let alone an independent operator working in rural BC. This resource is the MapPlace, a BC Ministry of Energy and Mines internet site that provides efficient, speedy and free interactive access to government geographical, geological and mineral exploration datasets that would otherwise require a small, well-financed library.

Originally designed by the BC Geological Survey as a tool for mineral explorationists, the service has also proven to be an excellent resource for agencies and stakeholder groups who require mineral potential inventories for purposes ranging from public land use planning to treaty negotiations. As the MapPlace website continues to evolve, it has also — somewhat unexpectedly — become an ideal geological-based reference tool for professional geoscientists and engineers involved in environmental investigations and assessments.



Figure 1: MapPlace topographic map of Vancouver showing city, municipal and Indian reserve boundaries.

Features of the MapPlace

The brainchild of Ward Kilby PGeo, formerly of the BC Geological Survey, the MapPlace (www.em.gov.bc.ca/mapplace) is an award-winning, web-based system that provides the mineral exploration industry, land use planners, government agencies and the general public with free access to BC mineral exploration information in a dynamic map format.

Its development was linked to the 1997 release of AutoDesk's MapGuide™ software, which displays, retrieves and analyzes vector and raster based map information over the internet and can be downloaded free of charge from the Ministry's website.

The MapPlace provides interactive map access to most of the BC Ministry of Energy and Mines geospatial data holdings including bedrock and surficial geology, metallic and industrial mineral potential ranking, regional silt and water geochemical surveys (RGS), mineral occurrences (MINFILE), assessment reports (ARIS) and mineral title locations.

The user can produce user-defined map views by combining these themes with other georeferenced datasets and related map based information (vector and raster based) including administrative boundaries, topographic features (TRIM), digital elevation model (DEM) shaded relief, satellite (LandSat) and aeromagnetics.

Final maps can then be printed or pasted into common graphics packages. In addition, many of the features that can be displayed on the MapPlace are linked to supporting database tables, thus allowing the discovery, retrieval and reporting of valuable attribute data linked to individual map objects. For some themes, clicking on an object links to a separate web site such as MINFILE or Mineral Titles, allowing further search and retrieval capabilities.

The power of the system is that it provides some near-GIS options such as buffering and retrieving attributes for polygons or points. With the MapGuide Author software, the user has nearly complete control of how data is displayed, thus allowing further customization of the resultant map. The BC Mapper application on the MapPlace site also allows users to input their own data on top of existing MapPlace themes by heads-up digitizing of polygons, points and lines on screen.

Using the MapPlace

The MapPlace website was developed around several off-the-shelf software packages including Autodesk MapGuide™, Allaire ColdFusion™, Microsoft Access™ and the usual web server software. Databases handle all the tabular information associated with the site. ColdFusion is used as a web database manager, report writer and sophisticated web toolkit. MapGuide Server, Author and Viewer software provide the map displays, GIS functionality and development environment for this style of web presentation.

Several of the datasets displayed on the MapPlace, including the tectonic assemblage map geology, reside on MapGuide servers at Natural Resources Canada. This integration of data from different sources and custodianships is one of the most powerful features of distributed systems ([Figure 2](#)).

After accessing the web site and downloading the free viewing application software provided (online tutorials, interactive demos, help functions and FAQs are also available), the user is presented with a host of choices under Available Maps (found under Contents). With the most appropriate starting point being the BC Geological Survey geology map, it is then a simple task to access the required maps.

The first screen shows a map of BC divided into 1:250,000 scale NTS maps; a zoom-in feature allows isolation of the general area desired. As the required scale is reached, features such as contours, rivers, lakes, geology and nickel geochemistry can be "turned on," with the level of detail dependent on the scale. The map produced can then be printed with the desired title, legend, format and scale.

MapPlace and the Environmental Consultant

How can the MapPlace assist the environmental project manager? Pottinger Gaherty Environmental Consultants (PGL) of Vancouver has found the various datasets available on the MapPlace useful in characterizing the environmental settings of rural, and especially remote, sites for which data are often not easily available; for example:

- The regional geochemical survey (RGS) database has been helpful in determining potential natural sources of metals contamination.
- Mineral tenure data taken from the assessment report indexes (ARIS) database has been used to identify users of resource roads proposed for deactivation.
- The geographical data can provide a quick, reproducible satellite image (LandSat) map of any proposed study area in the province.
- Bedrock and surficial geology data provided on the website from a combination of digital geological maps and mineral occurrence and aggregate deposit descriptions (MINFILE) help in the interpretation of potential slope

stability hazards. They also provide a basis for the development of a preliminary hydrogeological model of an area.

- Best of all, the MapPlace does all this in about the same amount of time required to find (with luck) the right 1:50,000 scale topographic map in the office flat file.

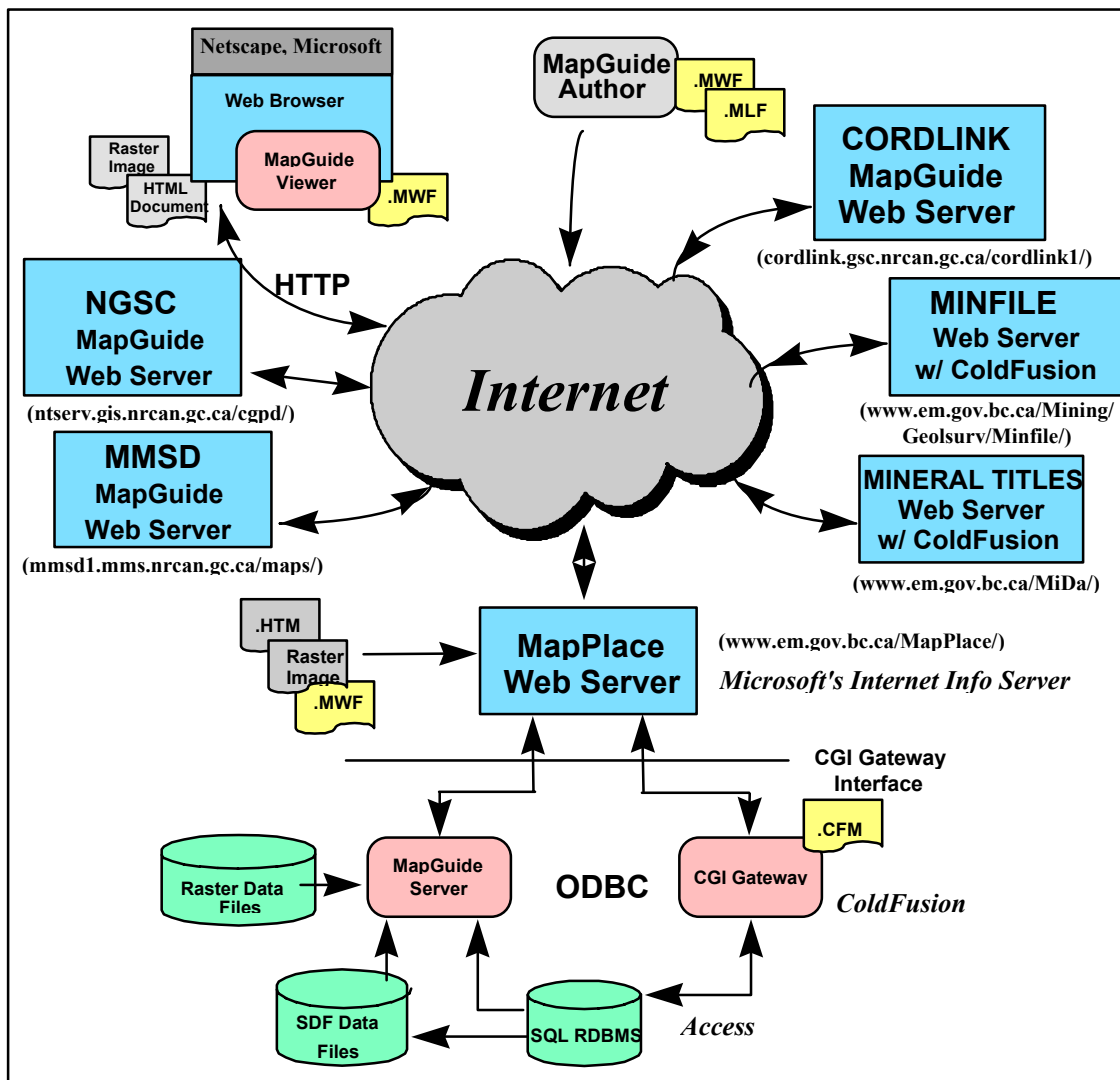


Figure 2: MapPlace components.

PGL has conducted a variety of studies for both industry and government clients that have required preliminary investigations for potential contaminants (Phase 1), often as part of a single phase of work, on numerous rural to remote sites spread over a broad geographic area. Each specific site requires a description of the hydrogeological setting, but it is neither practical nor cost effective to send a hydrologist to every site.

However, using geological data derived from the MapPlace combined with other collected data (site investigation field notes and photographs, interview notes of onsite personnel, available well logs, aerial photographs), it can be possible to provide a technically sound and very cost effective preliminary assessment of the hydrogeology of every site investigated.

Prefield Compilation: Examples

Using the MapPlace as part of the prefield compilation effort is especially beneficial. It allows a professional geoscientist to highlight additional features to be investigated by the person in the field (many of which require only a quick visual inspection) that might not otherwise have been part of the routine investigation.

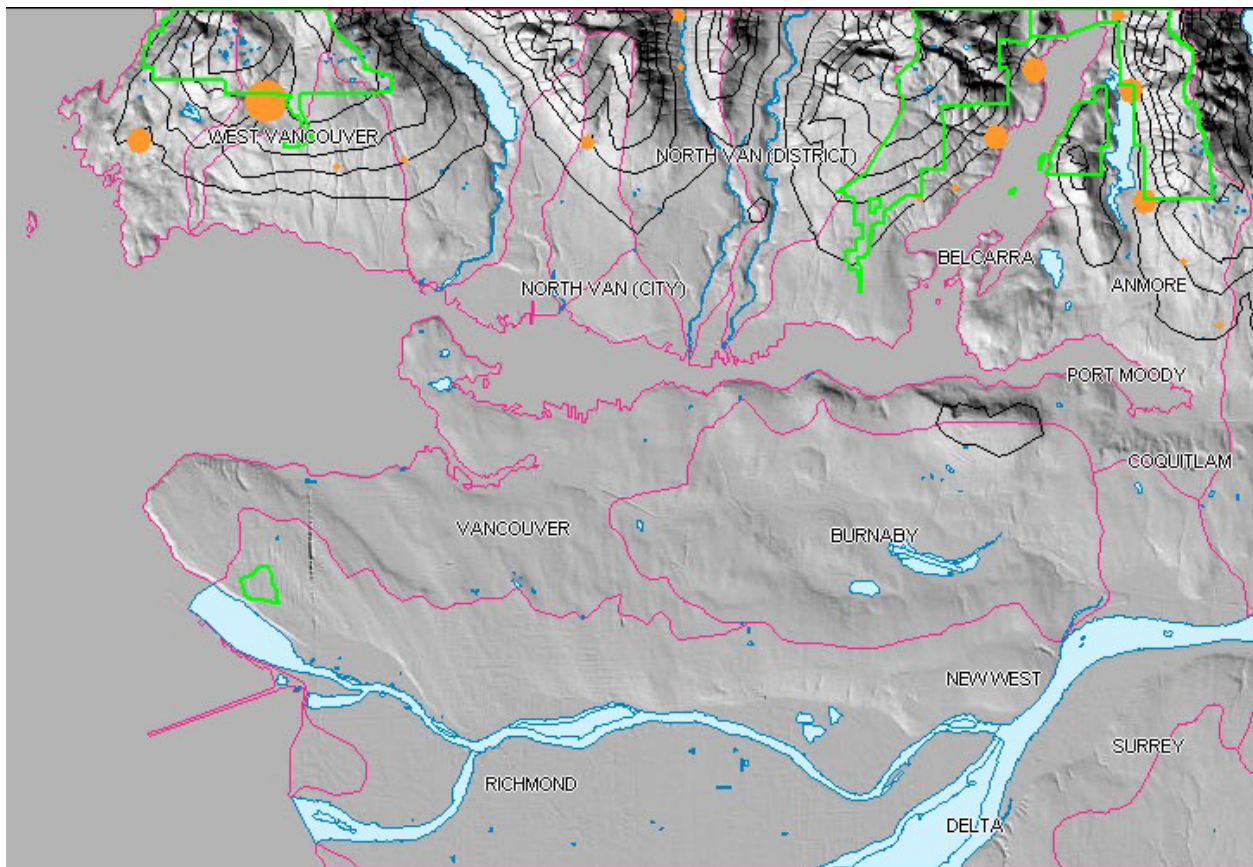


Figure 3: Vancouver image showing contours, watersheds, copper data and park boundaries.

An example site could be a fish hatchery. The data provided prior to the field investigation could be limited to a simple location map, legal description and site survey plan, and a couple of well descriptions from the provincial well registry located for properties in the vicinity.

Using the MapPlace, within an hour the prefield investigation file would include topographic, LandSat image and geologic maps (Figures 1, 3 and 4) reproduced in colour at the appropriate scale, along with available detailed bedrock or surficial geological descriptions. The result is a preliminary hydrogeological model based on an understanding that the site is very gently sloping, has abundant surface water, is underlain by massive granodiorite intrusives and is overlain by a blanket of impermeable, clay-rich, silty moraine greater than 5 m thick.

Another example might be a rural site with limited development and no known metal contamination sources, but one that exhibits elevated chromium and nickel levels in soils derived from alluvial sediments. Expensive analytical techniques could help determine the chromium and nickel present in sands concentrated within the alluvial beds by natural stream sedimentation processes.

By using the MapPlace, a professional geoscientist could first determine that tholeiitic basalts, often elevated in nickel and chromium, underlie the stream catchment area immediately surrounding the subject site. With plots from the Regional Geochemical Survey data, the MapPlace can provide support to the argument that the elevated metals present on the subject site are from natural sources. A plot of nickel anomalies in stream sediment samples collected by the BC Geological Survey showing an anomaly of 186 parts per million along the stream adjacent to the site could help to save significant costs and effort (Figure 3).

Conclusion

Pottinger Gaherty Environmental Consultants has successfully used the MapPlace website to the overall benefit of clients during the initial data compilation phase of many work programs. The result has been repeated positive feedback on the level of relevant detail provided — detail often not considered or reported because of a lack of easily available data.

Now operational for over four years, the MapPlace has proven itself as an efficient and effective way to disseminate map-based information, and its flexibility gives users — including professional geoscientists and engineers in the environmental field — a powerful tool for quickly building their own custom maps.

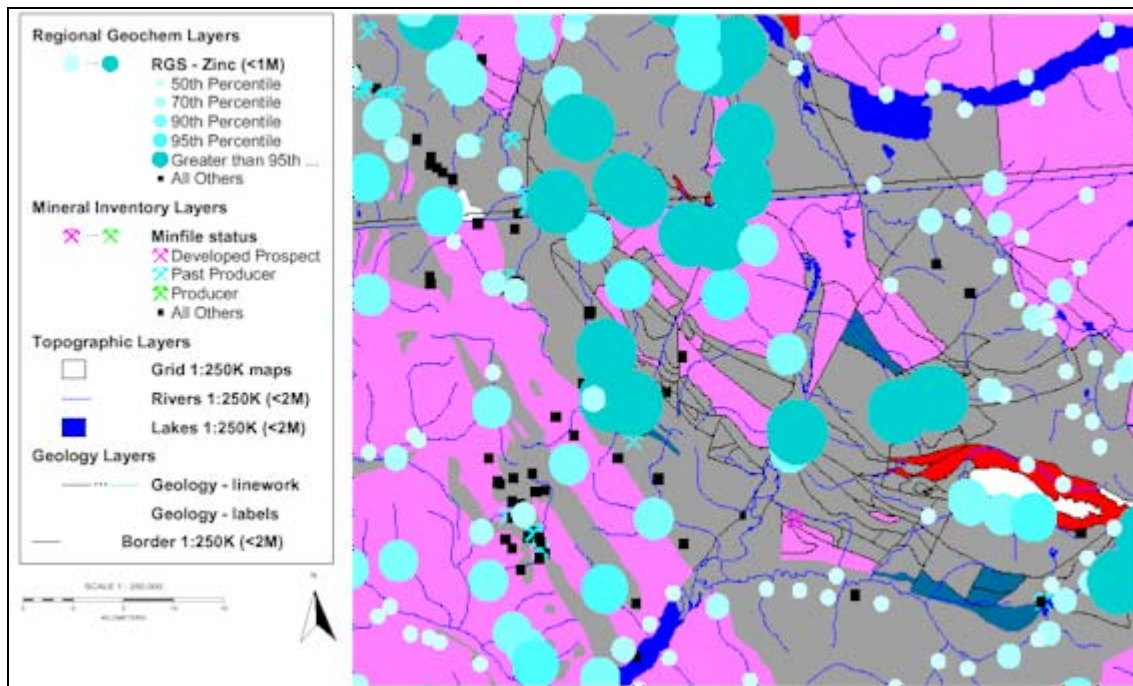


Figure 4: Map showing geology complete with Regional Geochemistry and MINFILE mineral occurrence site locations, each hot linked to information about the site.

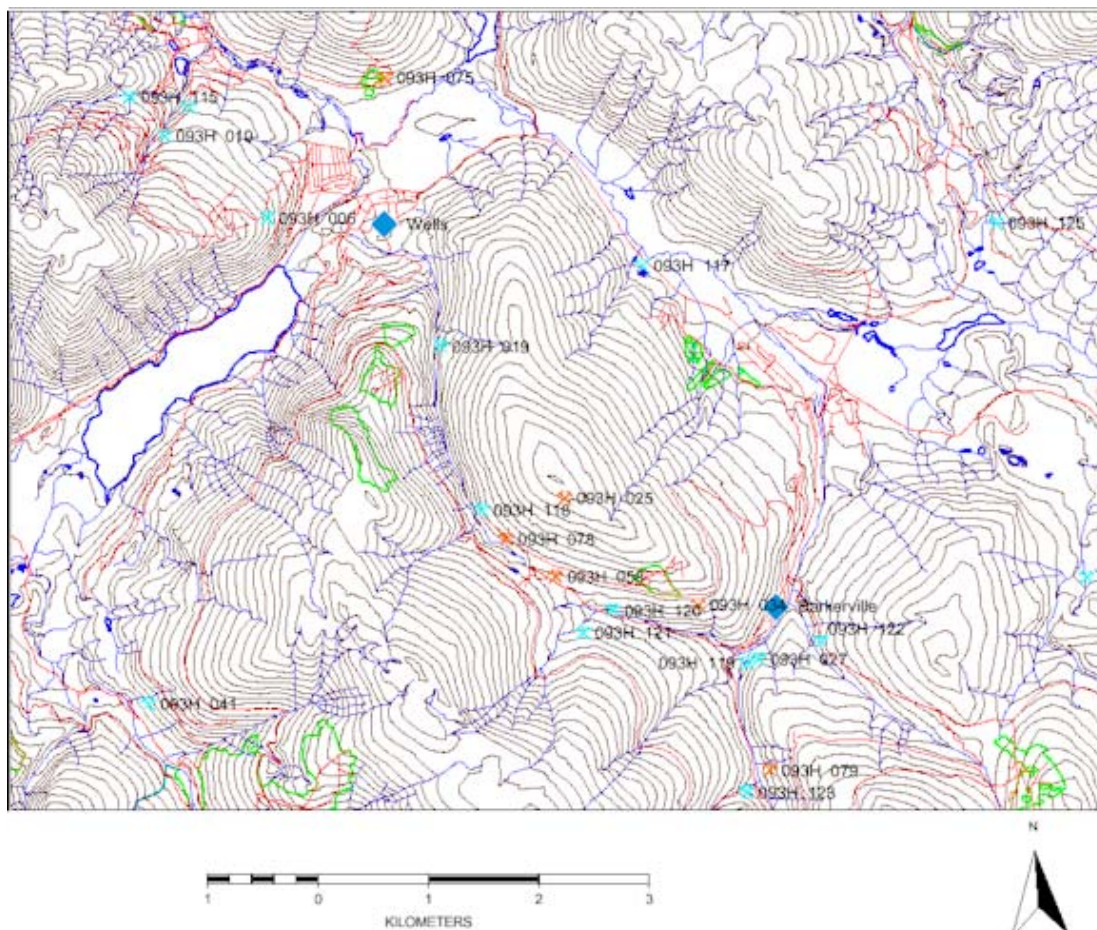


Figure 5: Map showing 1:20,000 TRIM and MINFILE.

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MacIntyre, D G, L D Jones and W E Kilby, 2001. "The MapPlace — an Award Winning Internet Exploration Service for BC." *Geolog*, Vol 30, Part 1, pp 12-13.

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Don MacIntyre PEng, a geologist with the BC Ministry of Energy and Mines, currently manages geoscience databases and digital mapping systems in support of mineral exploration and land use planning.

Appendix 6

Power Point Presentation Slides

Explore the MapPlace



Ministry of Energy and Mines

Larry D. Jones

MapPlace & Geoscience Databases

Don MacIntyre

Corporate GIS

Pat Desjardins

Digital Mapping

Ward Kilby

is acknowledged as the early developer of MapPlace

Workshop Agenda



- What is the MapPlace?
- Autodesk MapGuide Viewer
- Available data and maps
- Organization of Data
- Accessing Commands
- BCGS Geology Map
- Exploration Assistant
- Mineral Titles Map
- Downloads & Reports
- A Few Tips
- Summary

AND HANDS ON EXAMPLES THROUGHOUT

Exercise #1 – GSB Website

1. Open the MapPlace:

www.em.gov.bc.ca/MapPlace

2. Make this your home page or favourite bookmark
3. Investigate the GSB website

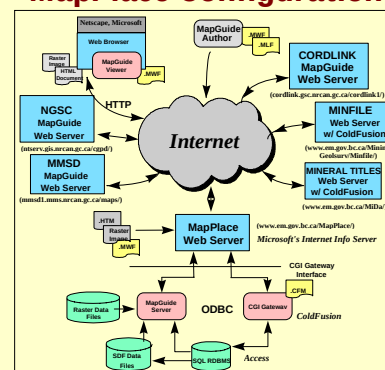
What is The MapPlace ?

- An **Internet-based** system that provides users access to vast amounts of free geospatial data through a GIS format.
- Allows users to **interactively view, search and download** datasets with the free: [Autodesk MapGuide Viewer](#).
- Allows users to **create, copy and print** their own maps and reports.
- Links to on-line [sample applications](#) and [interactive demos](#).
- Provides **Help Functions** and Frequently Asked Questions ([FAQs](#)).

Autodesk MapGuide Components

- **Autodesk MapGuide Viewer**
Autodesk MapGuide Viewer is the user front end. It is used to view and query the map data provided through Autodesk MapGuide Server.
- **Autodesk MapGuide Author**
Autodesk MapGuide Author is used for preparing data to be published over an intranet or the Internet.
- **Autodesk MapGuide Server**
Autodesk MapGuide Server is a utility that serves map data, prepared with Autodesk MapGuide Author from a web server.

MapPlace Configuration



Autodesk MapGuide Viewer

- Transforms your browser (Microsoft Internet Explorer or Netscape) into a map viewer that works over the Internet.
- A user-friendly geographic information system features
- View, query, report and interact with geographic data over the Internet.
- Distributed to end-users **FREE** of charge and is under 3MB in size.
- Can be downloaded by going to
www.mapguide.com

OR through a link on the MapPlace.

- A link to user guides is also available on the MapPlace.

Available Versions of the Autodesk MapGuide Viewer

- MapPlace uses Autodesk MapGuide Version 6.
- Requires Microsoft Windows 95/98/2000 or NT 4.0
- Available as a **Netscape Navigator** plug-in or a **Microsoft Internet Explorer** Active X control. (*Netscape 6.x and IE 6.x not supported*)
- Java Editions available for Netscape, IE and Mac OS 8.5 or 9

Exercise #2 – Download Viewer

- Download **Autodesk MapGuide Viewer**, using the [link on the MapPlace web site](#).
- Install the Viewer and restart the browser.
- Now you are ready to access maps through the MapPlace! Return to the MapPlace:
www.em.gov.bc.ca/MapPlace
- Investigate Support Documents on the Autodesk and MapPlace sites.

Available Data from the BC Ministry of Energy and Mines

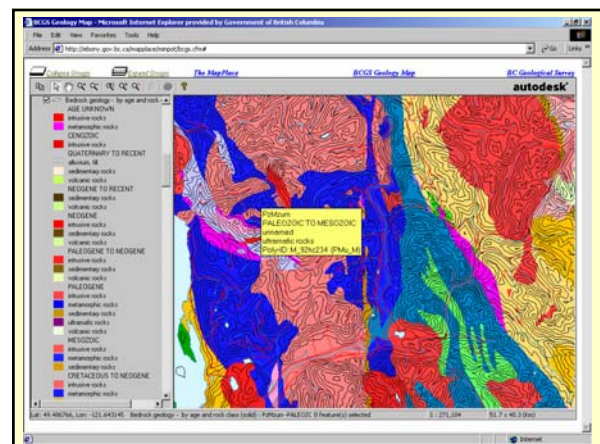
- The MapPlace provides access to most of BC Ministry of Energy and Mines geospatial data:
 - Metallic and industrial mineral potential ranking**
 - Regional silt & water geochemistry**
 - Bedrock & surficial geology**
 - Mineral occurrences (MINFILE)**
 - Assessment reports (ARIS)**
 - Mineral Titles**

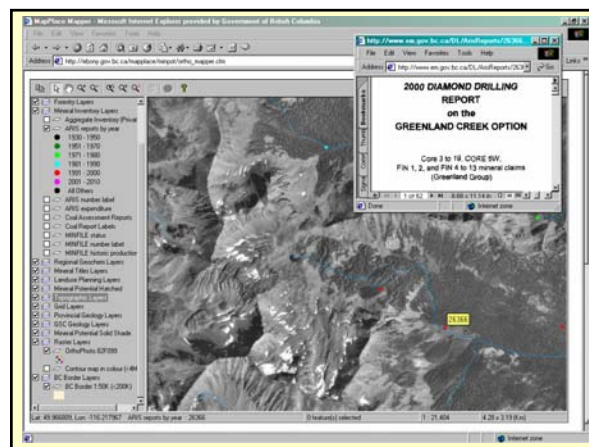
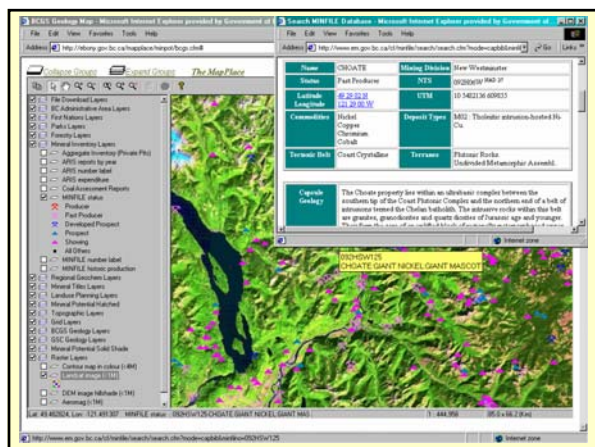
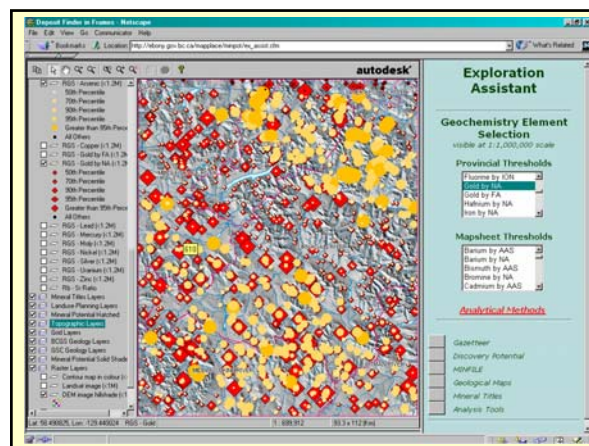
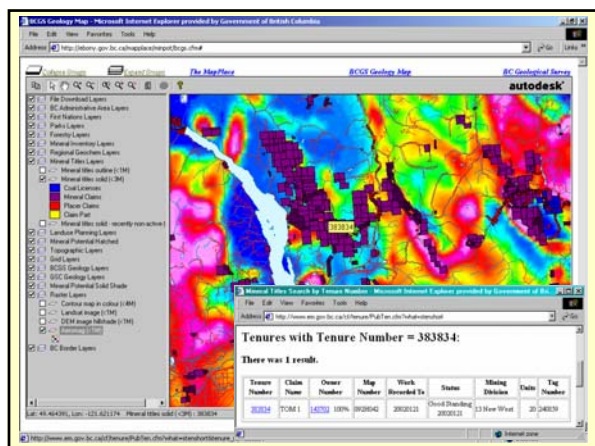
Other available data

Includes:

- Administrative boundaries
- Topographic features, such as roads, rivers, and contours
- Raster images, such as digital elevation model (DEM) shaded relief, satellite (LandSat) and aeromagnetics

All available to create user-defined maps





Maps at the MapPlace

- The MapPlace has **22 theme-based** maps.
- The **BCGS Geology Map** has access to all the available provincial datasets.
- The **Exploration Assistant** allows you to actively search and display elements of 5 main databases.
- The **Mineral Titles Map** displays Mineral, Placer and Coal tenures, with a lower window linked to Titles database. Crown Grant rasters are downloadable on this map.

22 Theme Maps Available

- BCGS Geology Map
- Exploration Assistant
- Mineral Titles Map
- World Map
- Canada Map
- USA Map
- Jennings River Geology
- Barkerville Geology
- Lillooet LRP Map
- Guichon Batholith
- Vernon Geology Map
- Aggregate Potential Map
- Terrain Map Index
- Digital Terrain Map Library
- Regional Geophysics Map
- Relief & Radar Map
- Southeast BC Geophysics
- Petroleum Titles & Wells
- Coal Map
- BC Geology Map Index
- GSC & GSB Geology Indexes
- Mineral Activity Maps
- General BC Map

Exercise #3 – Available Maps

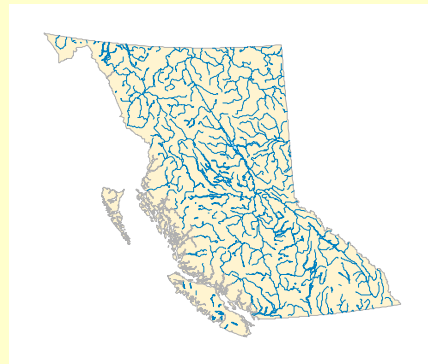
1. On the MapPlace, select [Available Maps](#)
2. Review maps available, including theme maps
3. Open the [BCGS Geology Map](#)

Organization of Data into Layers

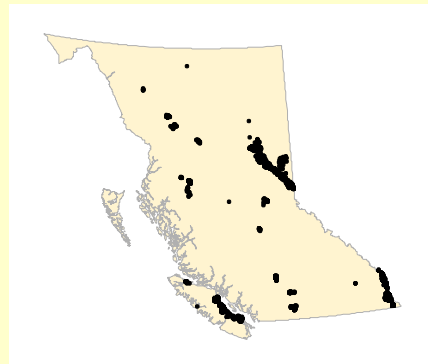
Each layer:

- Situated in the left side of the viewer
- Represents one entity, such as roads, forest districts, or cities
- Acts like a transparency
- When one or more layers are selected, they appear like a stack of transparencies and are displayed as a single map

Layers are like transparencies



A Rivers Layer



A Coal Boreholes Layer

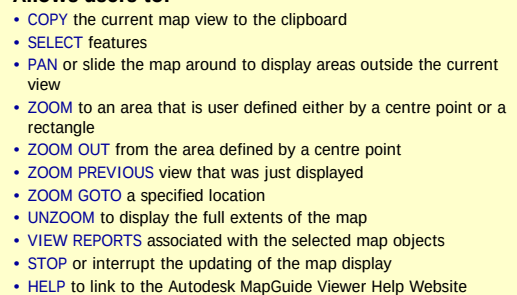


- Organizes the data
- Groups can be collapsed or expanded
 - *double-click on the group label*
- Layers can **only** be viewed if their Layer **Group** has been selected **first**

1. What Layer **Group** is the Coal Boreholes Layer located?
2. Deselect BC Administrative Layer **Group**. What happens to the BC Communities layer?
3. Collapse the First Nations, Forest Inventory, and Raster Layer Groups.

The screenshot shows the ArcGIS Desktop interface with the 'Layer Properties' dialog box open for the 'Zoom' layer. The 'Page Setup' tab is selected, and the 'Zoom' layer is highlighted in the 'Layers' list. The 'Zoom' layer is currently set to 'Zoom In'.

Toolbar – Across the top left side of the Viewer window
PopUp – Right click on the map



Exercise #6 – Linked Reports & Downloads

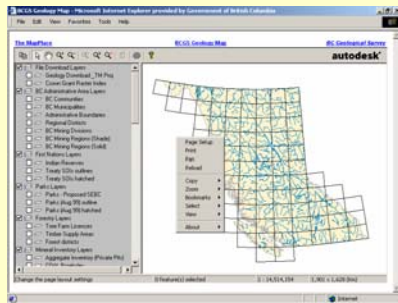
1. **Refresh** your [BCGS Geology Map](#), by using your BROWSER REFRESH toolbar button.
2. **Experiment** with the ZOOM, ZOOM IN, ZOOM OUT, ZOOM PREVIOUS, PAN toolbar button features.
3. Using the **ZOOM GOTO** feature: type in the category field “NTS map sheet” and in location type 082F. Press OK.
4. **Select** or **turn on** “ARIS reports by year” layer.
5. **Select one** of the ARIS reports by year points on the Viewer window. The VIEW REPORT toolbar button should appear active, click on it. A window will appear click on ARIS linked report.

Download Files Available

- 2 layers available:
 - Geology Download_TM Proj (vector e00)
 - Crown Raster Index Layer (raster)
- RGS, MINFILE, ARIS etc
- Most of the maps in MapPlace contain these layers

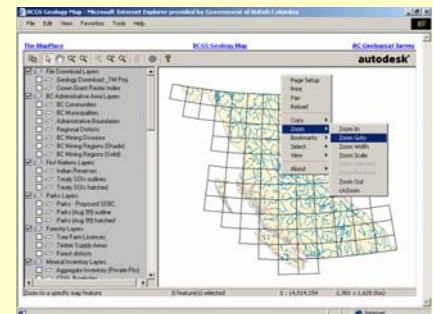
Popup Menu

- Is a menu that appears by “right-clicking” the mouse button anywhere in the map window
- Commands can be selected by clicking on one of the items in the menu



Popup Menu Continued

- Commands that have an arrow next to them (such as ZOOM) display a secondary popup menu when selected



The Popup Menu Provides Additional Features to the [Toolbar Buttons](#)

Additional features include:

- **ZOOM WIDTH** user-defined map width at the place of a cursor
- **ZOOM SCALE** user-defined map scale view
- **BOOKMARKS** to add & delete bookmark names for displayed map views
- **SELECT** criteria, such as **OBJECTS, RADIUS, POLYGON, & WITHIN** specified map objects
- **VIEW DISTANCE** between two or more locations; & **BUFFERS** allows users to create their own buffers around selected objects
- **ABOUT PREFERENCES** allows users to choose the type of map units (Metric or USA units) & coordinate system (latitude & longitude or mapping coordinate system) to be displayed on the map

Exercise #7 - Buffers

1. Refresh your map. Use [Zoom->Zoom Goto](#) to zoom into the Kena Gold showing (use 15 km for zoom width). Turn on the [MINFILE Status](#), [ARIS Report by year](#) and [Bedrock Geology by age & rock type](#) layers.
2. Hold down the shift key and select the three plutons in the middle of the map, right click and select [View->Buffers](#) from the popup menu.
3. Enter a buffer distance of 1 kilometre. In the map window select the buffer polygon, right click and select [Select->Select within existing polygons](#) from the popup menu.
4. Click on the report button and view [ARIS linked reports](#) for the ARIS points selected within the buffer polygon.

Exercise #7 continued...

4. Bookmark this map and call it "my buffer".
5. Turn off the buffer layer.
6. How far is your community to Vancouver?
7. Open the bookmark "my buffer". Using [PAGE SETUP](#) in the popup menu, change the title of the map to read "Your Name Map". Make sure the legend, north arrow, URL and scale are selected, but deselect time and date. Specify the scale in Map size to [1:1,300,000](#). Press OK.
8. Print using the popup menu.

Try Buffer Exercise in notes

Viewing Coordinates

Try this:

- To determine the coordinates of a location, place your cursor over the object. The coordinate system should appear in the lower left hand corner of the screen.
- To change or to display the coordinate system use the popup menu and click ABOUT and then PREFERENCES. Here you can choose the type of units you would like to display.

More layers available

- As you ZOOM in on an area layers become available or unavailable. Watch the legend on the left-hand side to see which areas can be viewed at any given scale.
- To find out what scale is currently displayed, look in the lower right corner of the window.

Exercise #8 – Zoom & Copy

1. Open the [World Map](#)
2. ZOOM to show the entire Canadian borders
3. What layer appears?
4. ZOOM to the Vancouver area.
5. What layers are available now?
6. Practice with zooming to different scales to see which layers become available and unavailable?
7. Now copy your current map view, using your toolbar button.
8. Open up Microsoft Word, EDIT → PASTE. Experiment by adding any symbols or text to the map. Now Print, using [FILE](#) → [Print](#) in Microsoft Word.

Exploration Assistant

- Performs detailed queries to be displayed on the map, such as:
 - [Gazetteer](#) to find location
 - [Discovery Potential](#): where Mineral Resource Assessment program predicted new deposits of specific types will be found
 - [MINFILE](#) by commodity or deposit type or name
 - [Regional Geochemistry](#) by provincial or map sheet threshold
 - [Geology](#) by age, lithology and terrane
 - [Mineral Titles](#) by claim name and anniversary date

Exercise #9 – Exploration Assistant

1. Open the [Exploration Assistant](#)
2. Use ZOOM GOTO, BC Communities, Nelson, with a zoom to width of 100km.
3. Query Geology with Jurassic age rocks with a volcanic lithology of any terrane
4. Maps can be saved as an html file and can be viewed with your browser. Use the SAVE AS command on the browser file menu. Name and click OK.

Mineral Titles Map

- Mineral, Placer and Coal tenure layers are unique layers to this map and can be viewed at a scale of 1:3,000,000 or less.
- This map is viewed along with an additional window frame to allow users to conduct a number of Mineral related searches.

Exercise #10 – Mineral Titles

1. Open the [Mineral Titles Map](#)
2. Enlarge the bottom window
3. Review the Mineral Title Related searches
4. Reduce the size of the bottom window
5. Use the **ZOOM GOTO** feature, in **Category** choose Mineral Tenure Number, in Location type in **386487**, then click OK. It may take over a minute to locate this tenure.
6. Turn on the Mineral Titles Claim Names layer.
7. Double click on the Mineral Tenure **386487**, to view a report in the bottom frame.

Exercise #10 continued...

8. What is the claim name?
9. What mining division is it located?
10. What map sheet is it primarily located?
11. Who is the owner of this claim?
12. What is the expiry data?

Exercise #10a – Crown Grant Rasters

1. **Refresh** the [Mineral Titles Map](#)
2. Use ZOOM GOTO, NTS Map sheet, **082F**
3. Turn on the **Crown Grant Raster Index Layer**
4. **Double click** on **082F/6**. This will cause information to appear in the bottom window.
5. In the **lower window** choose [Interactive Map with Crown Rasters](#). This should cause another window to appear.
6. Experiment with viewing other layers with this Crown Raster Layer and then print using your **BROWSER → File → Print**.

Exercise #11 – Using ArcExplorer & Geospatial Download Data

1. From the Geospatial Download page download and unzip one or more datasets in BC Albers projection.
2. Download and install ESRI ArcExplorer (if available) following the links at www.esri.com/software/arcexplorer/index.html
3. Add layers in ArcExplorer, set layer properties (double click layer name in left hand frame), zoom into selected areas.
4. Use the Query Builder to select features such as mineral occurrences or geology polygons.
5. Use the identify tool to retrieve attribute data.

Exercise #12 – Finding Data using the CGKN Internet Portal

1. Go to CGKN and enter **BCGS** as the username and **bcgs** as the password (or create your own username and password).
<http://www.cgkn.net/cgi-bin/wes/phtml/login.phtml>
2. Zoom into BC and select an area of interest (AOI). Click the Find Data button to begin search.
3. Click the Unselect All button, then select the BCGS Publications database. On the Search Specifications page click Search. Return to the map window.
4. Check the Footprint button for reports of interest to show their location on the map.
5. Select the Full Result Set hypertext to open an FGDC metadata listing for the selected publication.

A Few Tips

Tip #1

- Consult the [Frequently Asked Questions](#) (FAQ) on the MapPlace. You will probably find your question answered here.

Now check it out!

1. Go to the MapPlace home page
2. Open [Frequently Asked Questions](#) link
3. Browse through some of the questions

Tip #2

To Reduce Downloading Time

Try this...

When selecting more than one layer at a time, downloading time can be reduced by highlighting each layer title with your mouse cursor while holding down the "CTRL" key. *Next* select one of the adjacent highlighted layer boxes. The result will be the selection of all the layers at once.

**The same process can be used when deselecting layers.*

Tip #3

If you are going to ZOOM IN to an area, downloading time can be reduced if you turn on the desired layers after ZOOMING into an area.

The same idea applies when you ZOOM OUT of an area. Except this time turn off the layers before you ZOOM OUT.

Summary

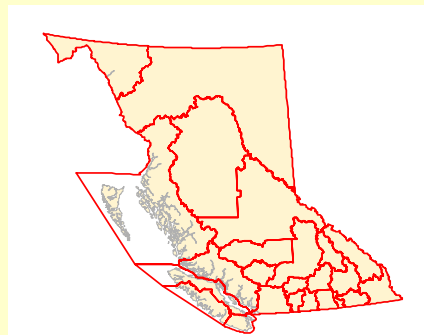
- In this seminar you have completed the following functions:

- ☐ Downloaded Autodesk MapGuide Viewer
- ☐ Aware of available maps & data
- ☐ Used the ZOOM features
- ☐ Saved as html
- ☐ Measured distance
- ☐ Created a buffer layer
- ☐ Printed to scale
- ☐ Printed using your browser
- ☐ Created a bookmark
- ☐ Found, selected, and displayed information

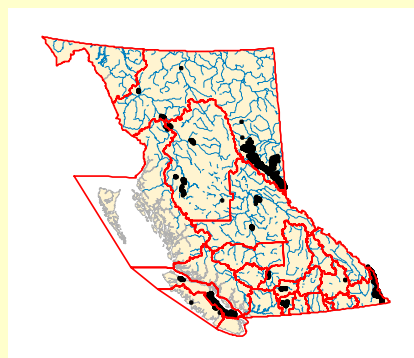
And much more!



Thank you for your time!



A BC Mining Divisions Layer



All 3 layers combined & displayed as a single map

Exercise #4 – BCGS Geology Map

1. Open the [BCGS Geology Map](#)
2. What layers are already selected?
3. Deselect or “turn off” the Lakes and Rivers 1:6M layers
4. Select or “turn on” the BC Communities Layer
5. Drag your mouse pointer over some of the communities, yellow labels should appear.

Layers are grouped by themes

Appendix 7

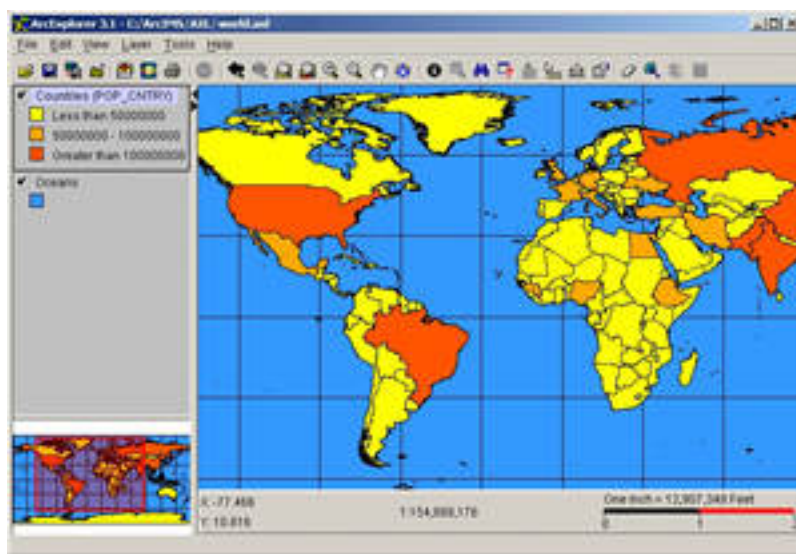
Overview of ArcExplorer©

<http://www.esri.com/software/arcexplorer/index.html>

Overview of ArcExplorer 4 Java Edition

Features

ArcExplorer 4 is a complete, easy-to-use GIS data viewer that displays and queries locally stored GIS data as well as MapServices from ArcIMS. ArcExplorer 4 is built with Java, which allows you to enjoy cross-platform support. And, as always, ArcExplorer is absolutely free! All you need to do to get started is to download ArcExplorer 4 from ESRI's Web site.



With ArcExplorer 4 you can

- o Pan and zoom through multiple map layers
- o Query spatial and attribute data
- o Create a buffer around selected features
- o Measure distances on a map
- o Create map layers with one symbol, unique symbols, and graduated symbols
- o Label map features, with many options for effects (such as highway shields)
- o Locate an address
- o Incorporate image formats (BMP, TIFF, PNG, JPG, and GIF)

- o Save and retrieve projects
- o Print maps
- o Incorporate overview maps
- o View legends and scale bars
- o Quickly access the [Geography Network](#), a collaborative system that connects users with data and services via the Internet
- o Add ArcSDE layers

ArcExplorer 4 also includes comprehensive on-line help.

ArcExplorer and the Internet

One of the unique features of ArcExplorer 4 is that you can display a MapService built with [ArcIMS](#) and perform GIS functions directly online—without having to download data from the Web. ArcExplorer 4 allows you to browse and query data on the Internet or your corporate Intranet.

Technical Information

ArcExplorer 4 can be installed on a Windows, UNIX, or Linux operating system.

ArcExplorer User Manual

To help you get the most out of ArcExplorer 4, you can download the user manual *Using ArcExplorer 4—Java Edition* in PDF format by going to

http://www.esri.com/software/arcexplorer/using_arcexplorer_java.pdf in your internet browser.

This helpful manual offers useful tips as well as complete instructions for installing ArcExplorer, creating maps, and saving projects.

You can also get user-to-user ArcExplorer help from the online discussion forum at

<http://forums.esri.com/forums.asp?c=24>

